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Final Report

RISK ASSESSMENT APPENDICES (VOLUME II)

NAVAL EDUCATION AND TRAINING CENTER NEWPORT, RHODE ISLAND

Contract No. N62472-86-C-1282
January 1992

Prepared for:

Northern Division
Naval Facilities Engineering Command
Lester, Pennsylvania

TRC
TRC Environmental Corporation

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APPENDIX A

RISK ASSESSMENT METHODS

MCALLISTER POINT LANDFILL

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APPENDIX A

RISK ASSESSMENT METHODS

Five different exposure scenarios were included in the risk assessment for the McAllister Point Landfill Site. The first scenario (children trespassing) involves exposures to the site as it currently exists, while the remaining four scenarios involve exposures related to potential future uses (recreational, construction, commercial/industrial and residential uses of the site. The scenarios are briefly described below. Model equations and parameter values for each exposure pathway follow.

SCENARIO 1 - Current Use - Trespassing

Children may trespass on the site as it currently exists, and thereby have contact with contaminated soil. Information from field personnel indicates that children trespass on-site on a frequent basis (i.e. a "fort" has been built on the northerly portion of the site; children have been observed playing along the shoreline). As a result, they may receive dermal and ingestion exposures to contaminants in soil. It is assumed that children trespass onto the site one day per week during the summer, and more infrequently during the school year, that children are unlikely to enter the site on a regular basis before the age of 9 years due to the location of the site in reference to nearby residences, and regular exposures are not expected beyond the age of 18 years due to changes in the use of recreational time.

SCENARIO 2 - Future Use - Recreational

Tentative plans for future use of the site include the construction of ballfields for public recreational use. As a result, children are expected to

receive dermal and ingestion exposures to contaminants in surface soil. It is assumed that children will visit the site for recreational purposes five days per week in the summer (10 weeks) and 3 days per week during the fall and spring (18 weeks), between the ages of 6-18 years.

SCENARIO 3 - Future Use - Construction

In the future, construction workers may be involved in building an commercial/industrial facility on the site. Through excavation and site preparation activities, they could receive extensive inhalation exposure to contaminants in dust, as well as dermal and ingestion exposures to contaminants in soil. It is assumed that excavation and site preparation activities would last for a 12 month period, and that no remediation of contaminants would occur prior to construction or occupation of the commercial/industrial/residential sites (addressed below).

SCENARIO 4 - Future Use - Commercial/Industrial

Future use of the site for commercial/industrial purposes presents a potential exposure of employees to site contamination assuming no remediation would occur prior to construction. Such exposures are most likely to include incidental ingestion and dermal exposure of contaminants in soil, and ingestion of contaminants in drinking water. It is assumed that employees would be on site five days/week, fifty weeks/year, for twenty-five years.

SCENARIO 5 - Future Use - Residential

Children and adults may occupy residences on the site. Separate scenarios are constructed for each receptor with both scenarios assuming no remediation would occur prior to development. In both cases, the relevant exposure

pathways are indoor and outdoor ingestion of dust/soil, outdoor dermal exposure to soil contaminants, outdoor inhalation of contaminants in dust, indoor inhalation of volatile compounds emanating from tap water, and ingestion exposures to contaminants in tap water. For children, parameter values for 0-6 year old children were selected, and exposure was assumed to take place over 6 years. For adults, exposure is assumed to occur for 30 years. For both receptors, the exposure frequency is assumed to be 350 days/year.

EXPOSURE EQUATIONS

SCENARIO 1: Current Use - Trespassing (Children)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day (0.5 mg/cm^2 x 2,000 cm^2 x .5)

ABS =	Volatile Organic Compounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible

EF = 21 days/year, based upon trespassing on site 1 day/week during the summer and 1 day/month for the remainder of the year

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ED = 9 years
BW = 49.2 kg (children 9-18 years old) (EPA, 1990b)
AT = 3,285 days for non-cancer risks
25,550 days for cancer risks

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day, which is typical for this age group
EF = 21 days/year
ED = 9 years
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
-Lead:	
Children	0.5
-All others:	1.0

BW = 49.2 (children, 9-18 years old) kg (EPA, 1990b)
AT = 3,285 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 2: Future Use - Recreational (Children)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

TRC

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Compounds 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 104 days/year, based upon use of the site 5 days/week during the summer (10 weeks) and 3 days/week during the fall and spring (18 weeks)
ED = 12 years
BW = 43.2 kg (children, 6-18 years old) (EPA, 1990b)
AT = 4,380 days for non-cancer risks
25,550 days for cancer risks

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day, which is typical for this age group.
EF = 104 days/year
ED = 12 years

RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3
	Low soil sorption	1.0
	Inorganics	
	-Lead:	
	Children	0.5
	-All others:	1.0
BW =	43.2 kg (children, 6-18 years old) (EPA, 1990b)	
AT =	4,380 days for non-cancer risks	
	25,550 days for cancer risks	

SCENARIO 3: Future Use - Construction (Adults)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS =	Chemical Concentration in Soil down to a depth of 12 feet (mg/kg)
CF =	Conversion Factor (10^{-6} kg/mg)
SCR =	Skin Contact Rate (mg/day)
ABS =	Absorption Factor (unitless)
EF =	Exposure Frequency (events/year)
ED =	Exposure Duration (years)
BW =	Body Weight (kg)
AT =	Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR =	500 mg/day	
ABS =	Volatile Organic Compounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible
EF =	250 days/year	
ED =	1 year	
BW =	70 kg	
AT =	365 days for non-cancer risks	
	25,550 days for cancer risks	

TRC

- Ingestion of Chemicals in Soil and Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 480 mg/day
EF = 250 days/year
ED = 1 year

RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3
	Low soil sorption	1.0
	Inorganics	
	-Lead:	
	Adults	0.3
	-All others:	1.0

BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

- Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/day)
EF = Exposure Frequency (days/year)

TRC

ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 20 m^3/day for adults under moderate exertion
EF = 250 days/year
ED = 1 year
RAF_{ai} = 1.0
BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 4: Future Use - Commercial/Industrial (Adults)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS =

Volatile Organic Compounds	0.50
Semivolatile Organic Compounds:	
PAHs	0.05
PCBs	0.05
Pesticides:	
High soil sorption	0.05
Low soil sorption	0.50
Inorganics	Negligible

EF = 250 days/year
ED = 25 years
BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 50 mg/day
EF = 250 days/year
ED = 25 years
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
-Lead:	
Adults	0.3
-All others:	1.0

BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)

BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 1.0 liter/day (EPA, 1990b)
EF = 250 days/year
ED = 25 years
BW = 70 kg(EPA, 1990b)
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

SCENARIO 5: Future Use - Residential (Children and Adults)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Compounds 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil and House Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day for adults; 200 mg/day for children ages 1-6 years
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
- Lead:	
Children	0.5
Adults	0.3
- All others:	1.0

BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 10,950 and 25,550 days for children non-cancer and cancer risks, respectively
8,760 and 25,550 days for adult non-cancer and cancer risks, respectively

- Outdoor Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/day)

TRC

EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged -- days)

Specific Parameter Values:

CD = Derived from fugitive dust generation (see below)
IR = 20 m^3/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF_{ai} = 1.0
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged -- days)

Specific Parameter Values:

IR = 2.0 liters/day for adult, 0.75 liters/day children (EPA, 1990b)
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old (EPA, 1990b)
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Inhalation of Airborne (Vapor Phase) Chemicals.

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CA \times IR \times ET \times EF \times ED}{BW \times AT}$$

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where:

CA = Contaminant Concentration in Air (mg/m^3) - derived from volatilization during showering (Andelman, 1985)
IR = Inhalation Rate (m^3/hour)
ET = Exposure Time (hours/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged -- days)

Specific Parameter Values:

IR = 0.6 m^3/hour light activity assumed (EPA, 1990b)
ET = 0.2 hours/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

EXPOSURE POINT MODELS

- Model Estimates of Fugitive Dust Generation

Emissions estimates were calculated for activities resulting in soil disturbance, such as heavy equipment operation and wind erosion, which may occur over the site during the construction scenario.

The potentially significant components of fugitive dust at this site are:

1) Wind erosion of dust from surfaces without vegetative cover, and

2) Dust from loading/unloading of excavated soil.

Fugitive dust from wind erosion over exposed soil and from loading/unloading activities was calculated using (EPA, AP-42, 1988). Fugitive dust generation tables showing all model inputs are presented in Table A-1. The data are summarized in Table A-2. The models are described below.

$$E = a \cdot I \cdot K \cdot C \cdot L \cdot V \cdot A \cdot T$$

where:

E = Emission rate (kg/day)
a = Fraction of total wind losses (wind erosion of soil) that remain suspended
I = Soil erodibility
K = Soil roughness factor
C = Climatic factor

L = Field length factor
V = Vegetative cover factor
A = Area of the site
T = Time conversion factor

Most of these values are specified in EPA (1988) for worst-case treatments. The climatic factor is read from a map and multiplied by .01 as specified. The variables a and I are determined based on site soil characteristics. The following values were used:

a = 0.01
I = 134 tons $acre^{-1}$ yr^{-1}
K = 1 (worst-case for flat terrain)
C = .04
L = .7
V = 1 (no vegetative cover-worst case)
A = 4 acres (Scenario 3); 1 acre (Scenario 5)
T = 1 yr/365 days

The second component is due to loading/unloading of soils due to excavation activities and can be accounted for by:

$$E = \frac{k \cdot (.0016) \cdot (U/2.2)^{1.3}}{(M/2)^{1.4}}$$

and

$$E_{ed} = V \cdot D \cdot E/T$$

where:

E = Emission factor due to loading/dumping (kg/Mg)
k = Particle size multiplier
U = Mean wind speed (m/s)
M = Soil moisture (%)
E_{ed} = Emission rate due to loading/dumping (kg/day)
V = Volume of soil excavated (m^3)
D = Density of soil (Mg/m^3)
T = Time conversion factor (days of excavation)

Using conservative assumptions and appropriate guidelines (EPA, AP-42, 1988):

k = .74
U = 4.74 m/s
M = 5%
V = 917.5 m^3
D = 1.5 Mg/m^3
T = 180 days

The emissions due to loading/dumping are presented in Table A-2. Total fugitive emissions (from wind activity and loading/dumping) are also presented in Table A-2.

The dust concentration on site is calculated by:

$$Cs = \frac{E}{w \cdot W \cdot H} \cdot C_f$$

where:

Cs = Dust concentration on site (mg/m^3)
E = Total emission rate (kg/day)
w = Wind speed = 4.74 m/s
W = Width (entire site) = 457 m
H = Breathing height = 2 m
C_f = Factors for converting from days to seconds and from kg to mg

Total fugitive dust concentrations on-site are shown in Table A-2.

The concentration of contaminant suspended in air is estimated by a simple ratio of contaminant concentration in soil to fugitive dust emissions:

$$A_C = CC \cdot C_S \cdot C_f$$

where:

A_C = Concentration of suspended contaminant (mg/m^3)
CC = Contaminant concentration in soil (mg/kg)
C_S = Dust concentration on site (mg/m^3)
C_f = Conversion factor (kg/mg)

TABLE A-1
DUST EMISSION RATE
FOR MCALLISTER POINT

SITE LOCATION AND SCENARIO (#)	VEGETATIVE COVER FACTOR (V')	UNSHELTERED FIELD WIDTH FACTOR (L')	CLIMATIC FACTOR (C)	SURFACE ROUGHNESS FACTOR (K)	SOIL ERODIBILITY (I) (ton/acre/year)	PORTION AS SUSPENDED PARTICULATES (a)	EMISSION FACTOR (E) (ton/acre/yr)	CONVERSION FACTOR (kg/ton)	EMISSION FACTOR (E) (kg/acre/year)	TIME CONSTANT (year/day)	AREA (acres)	WIND EROSION EMISSION RATE (kg/day)
McAllister Point (3)	1	0.7	0.04	1	134	0.010	3.8E-02	907.18	3.4E+01	0.0027	4	3.68E-01
McAllister Point (5)	1	0.7	0.04	1	134	0.010	3.8E-02	907.18	3.4E+01	0.0027	1	9.19E-02

LOADING & DUMPING -- DUST EMISSION RATE

SITE LOCATION AND SCENARIO (#)	MOISTURE CONTENT CONSTANT	MATERIAL MOISTURE CONTENT (M) (%)	WIND SPEED CONSTANT	MEAN WIND SPEED (U) (m/s)	PARTICLE SIZE CONSTANT	PARTICLE SIZE MULTIPLIER (k)	EMISSION FACTOR (E) (kg/Mg)	TIME (days)	DENSITY OF SOIL (D) (Mg/m3)	VOLUME OF SOIL EXCAVATED (m3)	LOADING AND DUMPING EMISSION RATE (kg/day)
McAllister Point (3)	2	5	2.2	4.74	1.60E-03	0.74	8.9E-04	180	1.5	917.5	6.81E-03

TABLE A-2

FUGITIVE DUST EMISSION
RATES AND AMBIENT CONCENTRATION ESTIMATES

McAllister Point Landfill

DUST EMISSION RATE (kg/day)

	Scenario 3	Scenario 5
Wind Erosion	3.68 E-01	9.19 E-02
Loading/Unloading	6.81 E-03	NA
Total Dust Emission Rate	3.74 E-01	9.19 E-02
Dust Concentration (kg/m^3)	1.00 E-09	2.46 E-10

NA = Not Applicable

TABLE A.1-1
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	MEAN CONC. IN SOIL (mg/kg)	MAX CONC. IN SOIL (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.8	91.4	1.0E-06	500	0.00	21	9	49.2	3285	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.2	20.0	1.0E-06	500	0.00	21	9	49.2	3285	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.5	1.7	1.0E-06	500	0.00	21	9	49.2	3285	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.7	21.8	1.0E-06	500	0.00	21	9	49.2	3285	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.3	69.2	1.0E-06	500	0.00	21	9	49.2	3285	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.4	20.2	1.0E-06	500	0.00	21	9	49.2	3285	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.2	6070.0	1.0E-06	500	0.00	21	9	49.2	3285	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	98.8	1980.0	1.0E-06	500	0.00	21	9	49.2	3285	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	382.5	678.0	1.0E-06	500	0.00	21	9	49.2	3285	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.1	1.6	1.0E-06	500	0.00	21	9	49.2	3285	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	21.5	105.0	1.0E-06	500	0.00	21	9	49.2	3285	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.4	2.0	1.0E-06	500	0.00	21	9	49.2	3285	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	245.2	19200.0	1.0E-06	500	0.00	21	9	49.2	3285	25550
VOLATILES														
1,1-Dichloroethene	1.1E-09	1.4E-10	2.6E-09	3.4E-10	0.0037	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
1,1,1-Trichloroethane	1.2E-09	1.5E-10	2.6E-09	3.4E-10	0.0041	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
1,1,2-Trichloroethane	1.1E-09	1.5E-10	2.6E-09	3.4E-10	0.0039	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
1,1,2,2-Tetrachloroethane	1.4E-09	1.7E-10	3.5E-09	4.5E-10	0.0048	0.0120	1.0E-06	500	0.50	21	9	49.2	3285	25550
1,2-Dichloroethane	1.1E-09	1.4E-10	2.6E-09	3.4E-10	0.0037	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
1,2-Dichloroethene	1.1E-09	1.4E-10	2.6E-09	3.4E-10	0.0037	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
1,2-Dichloropropane	1.2E-09	1.5E-10	2.6E-09	3.4E-10	0.0040	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
2-Hexanone	2.7E-09	3.4E-10	7.3E-09	9.4E-10	0.0091	0.0250	1.0E-06	500	0.50	21	9	49.2	3285	25550
Benzene	1.1E-09	1.5E-10	2.6E-09	3.4E-10	0.0039	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
Bromodichloromethane	1.1E-09	1.5E-10	2.6E-09	3.4E-10	0.0039	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
Bromoform	1.1E-09	1.5E-10	2.6E-09	3.4E-10	0.0039	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
Carbon Tetrachloride	1.1E-09	1.5E-10	2.6E-09	3.4E-10	0.0039	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
Chlorobenzene	1.3E-09	1.6E-10	3.5E-09	4.5E-10	0.0043	0.0120	1.0E-06	500	0.50	21	9	49.2	3285	25550
Chloromethane	2.2E-09	2.9E-10	5.0E-09	6.4E-10	0.0076	0.0170	1.0E-06	500	0.50	21	9	49.2	3285	25550
Chloroform	1.1E-09	1.4E-10	2.6E-09	3.4E-10	0.0037	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
Dibromochloromethane	1.1E-09	1.5E-10	2.6E-09	3.4E-10	0.0039	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
Ethylbenzene	1.3E-09	1.6E-10	3.5E-09	4.5E-10	0.0043	0.0120	1.0E-06	500	0.50	21	9	49.2	3285	25550
Styrene	1.4E-09	1.7E-10	3.5E-09	4.5E-10	0.0046	0.0120	1.0E-06	500	0.50	21	9	49.2	3285	25550
Tetrachloroethene	1.2E-09	1.5E-10	3.5E-09	4.5E-10	0.0041	0.0120	1.0E-06	500	0.50	21	9	49.2	3285	25550
Toluene	1.2E-09	1.5E-10	3.5E-09	4.5E-10	0.0040	0.0120	1.0E-06	500	0.50	21	9	49.2	3285	25550
Trichloroethene	1.1E-09	1.5E-10	2.6E-09	3.4E-10	0.0039	0.0080	1.0E-06	500	0.50	21	9	49.2	3285	25550
Vinyl chloride	2.2E-09	2.9E-10	5.0E-09	6.4E-10	0.0076	0.0170	1.0E-06	500	0.50	21	9	49.2	3285	25550
Xylenes	1.4E-09	1.7E-10	3.5E-09	4.5E-10	0.0046	0.0120	1.0E-06	500	0.50	21	9	49.2	3285	25550

TABLE A.1-1 (cont.)
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	MEAN CONC. IN SOIL (mg/kg)	MAX CONC. IN SOIL (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	1.3E-08	1.7E-09	1.3E-08	1.7E-09	0.44	0.44	1.0E-06	500	0.05	21	9	49.2	3285	25550
2-Methylnaphthalene	7.8E-09	1.0E-09	3.2E-08	4.1E-09	0.27	1.10	1.0E-06	500	0.05	21	9	49.2	3285	25550
2,4-Dichlorophenol	1.3E-08	1.7E-09	1.3E-08	1.7E-09	0.44	0.44	1.0E-06	500	0.05	21	9	49.2	3285	25550
2,4,5-Trichlorophenol	6.4E-08	8.3E-09	6.4E-08	8.3E-09	2.20	2.20	1.0E-06	500	0.05	21	9	49.2	3285	25550
3,3-Dichlorobenzidine	2.3E-08	2.9E-09	4.7E-07	6.0E-08	0.77	16.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Acenaphthene	9.4E-09	1.2E-09	1.1E-07	1.4E-08	0.32	3.80	1.0E-06	500	0.05	21	9	49.2	3285	25550
Acenaphthylene	9.9E-09	1.3E-09	1.3E-08	1.7E-09	0.34	0.44	1.0E-06	500	0.05	21	9	49.2	3285	25550
Anthracene	1.1E-08	1.4E-09	2.0E-07	2.6E-08	0.38	6.80	1.0E-06	500	0.05	21	9	49.2	3285	25550
Benzo(a)anthracene	2.0E-08	2.6E-09	5.6E-07	7.1E-08	0.70	19.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Benzo(a)pyrene	2.4E-08	3.1E-09	4.7E-07	6.0E-08	0.84	16.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Benzo(b)fluoranthene	2.8E-08	3.5E-09	4.4E-07	5.6E-08	0.94	15.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Benzo(ghi)perylene	2.1E-08	2.8E-09	2.5E-07	3.2E-08	0.74	8.40	1.0E-06	500	0.05	21	9	49.2	3285	25550
Benzo(k)fluoranthene	2.5E-08	3.2E-09	4.1E-07	5.3E-08	0.84	14.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Bis(2ethylhexyl)phthalate	1.1E-08	1.4E-09	2.3E-07	3.0E-08	0.37	7.90	1.0E-06	500	0.05	21	9	49.2	3285	25550
Butylbenzylphthalate	8.2E-09	1.1E-09	2.3E-07	3.0E-08	0.28	7.90	1.0E-06	500	0.05	21	9	49.2	3285	25550
Chrysene	2.4E-08	3.1E-09	5.3E-07	6.8E-08	0.82	18.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Dibenzofuran	8.0E-09	1.0E-09	8.2E-08	1.1E-08	0.27	2.80	1.0E-06	500	0.05	21	9	49.2	3285	25550
Dibenzo(ah)anthracene	1.3E-08	1.6E-09	2.3E-07	3.0E-08	0.43	7.90	1.0E-06	500	0.05	21	9	49.2	3285	25550
Diethylphthalate	9.5E-09	1.2E-09	1.3E-08	1.7E-09	0.32	0.44	1.0E-06	500	0.05	21	9	49.2	3285	25550
Dimethylphthalate	1.3E-08	1.7E-09	1.3E-08	1.7E-09	0.44	0.44	1.0E-06	500	0.05	21	9	49.2	3285	25550
Di-n-butylphthalate	2.0E-07	2.5E-08	2.0E-07	2.5E-08	6.70	6.70	1.0E-06	500	0.05	21	9	49.2	3285	25550
Di-n-octylphthalate	1.2E-08	1.6E-09	2.3E-07	3.0E-08	0.42	7.90	1.0E-06	500	0.05	21	9	49.2	3285	25550
Fluoranthene	4.1E-08	5.2E-09	1.3E-06	1.7E-07	1.39	46.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Fluorene	9.6E-09	1.2E-09	1.4E-07	1.8E-08	0.33	4.70	1.0E-06	500	0.05	21	9	49.2	3285	25550
Indeno(123cd)pyrene	2.1E-08	2.7E-09	2.6E-07	3.3E-08	0.72	8.90	1.0E-06	500	0.05	21	9	49.2	3285	25550
Naphthalene	9.1E-09	1.2E-09	8.8E-08	1.1E-08	0.31	3.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Phenanthrene	2.5E-08	3.2E-09	7.6E-07	9.8E-08	0.85	26.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
Phenol	1.3E-08	1.7E-09	1.3E-08	1.7E-09	0.44	0.44	1.0E-06	500	0.05	21	9	49.2	3285	25550
Pyrene	3.7E-08	4.7E-09	7.9E-07	1.0E-07	1.26	27.00	1.0E-06	500	0.05	21	9	49.2	3285	25550
PESTICIDES														
4,4'-DDD	7.5E-10	9.6E-11	5.6E-09	7.1E-10	0.028	0.190	1.0E-06	500	0.05	21	9	49.2	3285	25550
4,4'-DDE	6.3E-10	8.0E-11	7.0E-10	9.0E-11	0.021	0.024	1.0E-06	500	0.05	21	9	49.2	3285	25550
4,4'-DDT	1.2E-09	1.5E-10	5.3E-08	6.8E-09	0.041	1.800	1.0E-06	500	0.05	21	9	49.2	3285	25550
Aldrin	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Alpha-BHC	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Alpha-chlordane	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.095	0.095	1.0E-06	500	0.05	21	9	49.2	3285	25550
Beta-BHC	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Dieldrin	5.6E-10	7.1E-11	5.6E-10	7.1E-11	0.019	0.019	1.0E-06	500	0.05	21	9	49.2	3285	25550
Delta-BHC	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Endosulfan I	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Endosulfan II	5.6E-10	7.1E-11	5.6E-10	7.1E-11	0.019	0.019	1.0E-06	500	0.05	21	9	49.2	3285	25550
Endosulfan Sulfate	5.6E-10	7.1E-11	5.6E-10	7.1E-11	0.019	0.019	1.0E-06	500	0.05	21	9	49.2	3285	25550
Endrin	5.6E-10	7.1E-11	5.6E-10	7.1E-11	0.019	0.019	1.0E-06	500	0.05	21	9	49.2	3285	25550
Endrin ketone	5.6E-10	7.1E-11	5.6E-10	7.1E-11	0.019	0.019	1.0E-06	500	0.05	21	9	49.2	3285	25550
Gamma-BHC	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Gamma-Chlordane	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.095	0.095	1.0E-06	500	0.05	21	9	49.2	3285	25550
Heptachlor	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Heptachlor epoxide	2.8E-10	3.6E-11	2.8E-10	3.6E-11	0.010	0.010	1.0E-06	500	0.05	21	9	49.2	3285	25550
Methoxychlor	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.095	0.095	1.0E-06	500	0.05	21	9	49.2	3285	25550
Toxaphene	5.6E-09	7.1E-10	5.6E-09	7.1E-10	0.190	0.190	1.0E-06	500	0.05	21	9	49.2	3285	25550
PCB's														
Aroclor-1016	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.10	0.10	1.0E-06	500	0.05	21	9	49.2	3285	25550
Aroclor-1221	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.10	0.10	1.0E-06	500	0.05	21	9	49.2	3285	25550
Aroclor-1232	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.10	0.10	1.0E-06	500	0.05	21	9	49.2	3285	25550
Aroclor-1242	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.10	0.10	1.0E-06	500	0.05	21	9	49.2	3285	25550
Aroclor-1248	2.8E-09	3.6E-10	2.8E-09	3.6E-10	0.10	0.10	1.0E-06	500	0.05	21	9	49.2	3285	25550
Aroclor-1254	6.4E-09	8.3E-10	1.8E-08	2.3E-09	0.22	0.61	1.0E-06	500	0.05	21	9	49.2	3285	25550
Aroclor-1260	5.6E-09	7.1E-10	5.6E-09	7.1E-10	0.19	0.19	1.0E-06	500	0.05	21	9	49.2	3285	25550

TABLE A.1-2
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

CHEMICAL	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	MEAN CONC. IN SOIL (mg/kg)	MAX CONC IN SOIL (mg/kg)	INGESTION RATE CHILD (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCEF (days)	AT CANCER (days)
INORGANICS														
Antimony	8.0E-07	1.0E-07	1.1E-05	1.4E-06	6.84	91.40	100	1.0E-06	21	9	1.00	49.2	3285	25550
Arsenic	6.1E-07	7.8E-08	2.3E-06	3.0E-07	5.19	20.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Beryllium	5.5E-08	7.1E-09	2.0E-07	2.6E-08	0.47	1.70	100	1.0E-06	21	9	1.00	49.2	3285	25550
Cadmium	8.6E-08	1.1E-08	2.5E-06	3.3E-07	0.74	21.80	100	1.0E-06	21	9	1.00	49.2	3285	25550
Chromium	2.1E-06	2.6E-07	6.1E-06	1.0E-06	18.32	69.20	100	1.0E-06	21	9	1.00	49.2	3285	25550
Cobalt	1.1E-06	1.4E-07	2.4E-06	3.0E-07	9.38	20.20	100	1.0E-06	21	9	1.00	49.2	3285	25550
Copper	1.0E-05	1.3E-06	7.1E-04	9.1E-05	85.24	6070.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Lead	5.6E-06	7.4E-07	1.2E-04	1.5E-05	96.80	1980.00	100	1.0E-06	21	9	0.50	49.2	3285	25550
Manganese	4.5E-05	5.8E-06	7.9E-05	1.0E-05	382.52	678.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Mercury	5.8E-09	7.5E-10	1.9E-07	2.4E-08	0.10	1.60	100	1.0E-06	21	9	1.00	49.2	3285	25550
Nickel	2.5E-06	3.2E-07	1.2E-05	1.6E-06	21.54	105.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Selenium	4.2E-08	5.4E-09	2.3E-07	3.0E-08	0.36	2.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Zinc	2.9E-05	3.7E-06	2.2E-03	2.9E-04	245.18	19200.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
VOLATILES														
1,1-Dichloroethene	4.4E-10	5.6E-11	1.1E-09	1.4E-10	0.0037	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
1,1,1-Trichloroethane	4.6E-10	6.2E-11	1.1E-09	1.4E-10	0.0041	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
1,1,2-Trichloroethane	4.6E-10	5.9E-11	1.1E-09	1.4E-10	0.0039	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
1,1,2,2-Tetrachloroethan	5.4E-10	7.0E-11	1.4E-09	1.8E-10	0.0046	0.0120	100	1.0E-06	21	9	1.00	49.2	3285	25550
1,2-Dichloroethane	4.4E-10	5.6E-11	1.1E-09	1.4E-10	0.0037	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
1,2-Dichloroethene	4.4E-10	5.6E-11	1.1E-09	1.4E-10	0.0037	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
1,2-Dichloropropane	4.7E-10	6.0E-11	1.1E-09	1.4E-10	0.0040	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
2-Hexanone	1.1E-09	1.4E-10	2.9E-09	3.8E-10	0.0091	0.0250	100	1.0E-06	21	9	1.00	49.2	3285	25550
Benzene	4.6E-10	5.9E-11	1.1E-09	1.4E-10	0.0039	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
Bromodichloromethane	4.6E-10	5.9E-11	1.1E-09	1.4E-10	0.0039	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
Bromoform	4.6E-10	5.9E-11	1.1E-09	1.4E-10	0.0039	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
Carbon Tetrachloride	4.6E-10	5.9E-11	1.1E-09	1.4E-10	0.0039	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
Chlorobenzene	5.1E-10	6.5E-11	1.4E-09	1.8E-10	0.0043	0.0120	100	1.0E-06	21	9	1.00	49.2	3285	25550
Chloromethane	8.9E-10	1.1E-10	2.0E-09	2.6E-10	0.0076	0.0170	100	1.0E-06	21	9	1.00	49.2	3285	25550
Chloroform	4.4E-10	5.6E-11	1.1E-09	1.4E-10	0.0037	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
Dibromochloromethane	4.6E-10	5.9E-11	1.1E-09	1.4E-10	0.0039	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
Ethylbenzene	5.1E-10	6.5E-11	1.4E-09	1.8E-10	0.0043	0.0120	100	1.0E-06	21	9	1.00	49.2	3285	25550
Styrene	5.4E-10	7.0E-11	1.4E-09	1.8E-10	0.0046	0.0120	100	1.0E-06	21	9	1.00	49.2	3285	25550
Tetrachloroethene	4.8E-10	6.2E-11	1.4E-09	1.8E-10	0.0041	0.0120	100	1.0E-06	21	9	1.00	49.2	3285	25550
Toluene	4.6E-10	6.0E-11	1.4E-09	1.8E-10	0.0040	0.0120	100	1.0E-06	21	9	1.00	49.2	3285	25550
Trichloroethene	4.6E-10	5.9E-11	1.1E-09	1.4E-10	0.0039	0.0090	100	1.0E-06	21	9	1.00	49.2	3285	25550
Vinyl chloride	8.9E-10	1.1E-10	2.0E-09	2.6E-10	0.0076	0.0170	100	1.0E-06	21	9	1.00	49.2	3285	25550
Xylenes	5.4E-10	7.0E-11	1.4E-09	1.8E-10	0.0046	0.0120	100	1.0E-06	21	9	1.00	49.2	3285	25550

TABLE A.1-2 (cont.)
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

CHEMICAL	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	MEAN CONC. IN SOIL (mg/kg)	MAX CONC. IN SOIL (mg/kg)	INGESTION RATE CHILD (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	5.1E-08	6.6E-09	5.1E-08	6.6E-09	0.44	0.44	100	1.0E-06	21	9	1.00	49.2	3285	25550
2-Methylnaphthalene	3.1E-08	4.0E-09	1.3E-07	1.7E-08	0.27	1.10	100	1.0E-06	21	9	1.00	49.2	3285	25550
2,4-Dichlorophenol	5.1E-08	6.6E-09	5.1E-08	6.6E-09	0.44	0.44	100	1.0E-06	21	9	1.00	49.2	3285	25550
2,4,5-Trichlorophenol	2.6E-07	3.3E-08	2.6E-07	3.3E-08	2.20	2.20	100	1.0E-06	21	9	1.00	49.2	3285	25550
3,3-Dichlorobenzidine	9.0E-08	1.2E-08	1.9E-08	2.4E-07	0.77	16.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Acenaphthene	3.8E-08	4.8E-09	4.4E-07	5.7E-08	0.32	3.80	100	1.0E-06	21	9	1.00	49.2	3285	25550
Acenaphthylene	4.0E-08	5.1E-09	5.1E-08	6.6E-09	0.34	0.44	100	1.0E-06	21	9	1.00	49.2	3285	25550
Anthracene	4.5E-08	5.8E-09	8.0E-07	1.0E-07	0.38	6.80	100	1.0E-06	21	9	1.00	49.2	3285	25550
Benzo(a)anthracene	8.1E-08	1.0E-08	2.2E-06	2.9E-07	0.70	19.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Benzo(a)pyrene	9.8E-08	1.3E-08	1.9E-06	2.4E-07	0.84	16.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Benzo(b)fluoranthene	1.1E-07	1.4E-08	1.8E-06	2.3E-07	0.94	15.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Benzo(ghi)perylene	8.6E-08	1.1E-08	9.8E-07	1.3E-07	0.74	8.40	100	1.0E-06	21	9	1.00	49.2	3285	25550
Benzo(k)fluoranthene	9.8E-08	1.3E-08	1.6E-06	2.1E-07	0.84	14.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Bis(2ethylhexyl)phthalate	4.3E-08	5.5E-09	9.2E-07	1.2E-07	0.37	7.90	100	1.0E-06	21	9	1.00	49.2	3285	25550
Butylbenzylphthalate	3.3E-08	4.2E-09	9.2E-07	1.2E-07	0.28	7.90	100	1.0E-06	21	9	1.00	49.2	3285	25550
Chrysene	9.6E-08	1.2E-08	2.1E-06	2.7E-07	0.82	18.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Dibenzofuran	3.2E-08	4.1E-09	3.3E-07	4.2E-08	0.27	2.80	100	1.0E-06	21	9	1.00	49.2	3285	25550
Dibenzo(ah)anthracene	5.0E-08	6.4E-09	9.2E-07	1.2E-07	0.43	7.90	100	1.0E-06	21	9	1.00	49.2	3285	25550
Diethylphthalate	3.8E-08	4.9E-09	5.1E-08	6.6E-09	0.32	0.44	100	1.0E-06	21	9	1.00	49.2	3285	25550
Dimethylphthalate	5.1E-08	6.6E-09	5.1E-08	6.6E-09	0.44	0.44	100	1.0E-06	21	9	1.00	49.2	3285	25550
Di-n-butylphthalate	7.8E-07	1.0E-07	7.8E-07	1.0E-07	6.70	6.70	100	1.0E-06	21	9	1.00	49.2	3285	25550
Di-n-octylphthalate	4.9E-08	6.3E-09	9.2E-07	1.2E-07	0.42	7.90	100	1.0E-06	21	9	1.00	49.2	3285	25550
Fluoranthene	1.6E-07	2.1E-08	5.4E-06	6.9E-07	1.39	46.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Fluorene	3.8E-08	4.9E-09	5.5E-07	7.1E-08	0.33	4.70	100	1.0E-06	21	9	1.00	49.2	3285	25550
Indeno(123cd)pyrene	8.4E-08	1.1E-08	1.0E-06	1.3E-07	0.72	8.90	100	1.0E-06	21	9	1.00	49.2	3285	25550
Naphthalene	3.6E-08	4.7E-09	3.5E-07	4.5E-08	0.31	3.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Phenanthrene	9.9E-08	1.3E-08	3.0E-06	3.9E-07	0.85	26.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
Phenol	5.1E-08	6.6E-09	5.1E-08	6.6E-09	0.44	0.44	100	1.0E-06	21	9	1.00	49.2	3285	25550
Pyrene	1.5E-07	1.9E-08	3.2E-06	4.1E-07	1.26	27.00	100	1.0E-06	21	9	1.00	49.2	3285	25550
PESTICIDES														
4,4'-DDD	8.9E-10	1.2E-10	6.7E-09	8.6E-10	0.026	0.190	100	1.0E-06	21	9	0.30	49.2	3285	25550
4,4'-DDE	7.5E-10	9.7E-11	8.4E-10	1.1E-10	0.021	0.024	100	1.0E-06	21	9	0.30	49.2	3285	25550
4,4'-DDT	1.4E-09	1.8E-10	6.3E-08	8.1E-09	0.041	1.800	100	1.0E-06	21	9	0.30	49.2	3285	25550
Aldrin	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Alpha-BHC	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Alpha-chlordane	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.095	0.095	100	1.0E-06	21	9	0.30	49.2	3285	25550
Beta-BHC	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Dieldrin	6.7E-10	8.6E-11	6.7E-10	8.6E-11	0.019	0.019	100	1.0E-06	21	9	0.30	49.2	3285	25550
Delta-BHC	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Endosulfan I	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Endosulfan II	6.7E-10	8.6E-11	6.7E-10	8.6E-11	0.019	0.019	100	1.0E-06	21	9	0.30	49.2	3285	25550
Endosulfan Sulfate	6.7E-10	8.6E-11	6.7E-10	8.6E-11	0.019	0.019	100	1.0E-06	21	9	0.30	49.2	3285	25550
Endrin	6.7E-10	8.6E-11	6.7E-10	8.6E-11	0.019	0.019	100	1.0E-06	21	9	0.30	49.2	3285	25550
Endrin ketone	6.7E-10	8.6E-11	6.7E-10	8.6E-11	0.019	0.019	100	1.0E-06	21	9	0.30	49.2	3285	25550
Gamma-BHC	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Gamma-Chlordane	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.095	0.095	100	1.0E-06	21	9	0.30	49.2	3285	25550
Heptachlor	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Heptachlor epoxide	3.3E-10	4.3E-11	3.3E-10	4.3E-11	0.010	0.010	100	1.0E-06	21	9	0.30	49.2	3285	25550
Methoxychlor	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.095	0.095	100	1.0E-06	21	9	0.30	49.2	3285	25550
Toxaphene	6.7E-09	8.6E-10	6.7E-09	8.6E-10	0.190	0.190	100	1.0E-06	21	9	0.30	49.2	3285	25550
PCB's														
Arodor-1016	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.10	0.10	100	1.0E-06	21	9	0.30	49.2	3285	25550
Arodor-1221	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.10	0.10	100	1.0E-06	21	9	0.30	49.2	3285	25550
Arodor-1232	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.10	0.10	100	1.0E-06	21	9	0.30	49.2	3285	25550
Arodor-1242	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.10	0.10	100	1.0E-06	21	9	0.30	49.2	3285	25550
Arodor-1248	3.3E-09	4.3E-10	3.3E-09	4.3E-10	0.10	0.10	100	1.0E-06	21	9	0.30	49.2	3285	25550
Arodor-1254	7.7E-09	9.9E-10	2.1E-06	2.6E-09	0.22	0.61	100	1.0E-06	21	9	0.30	49.2	3285	25550
Arodor-1260	6.7E-09	8.6E-10	6.7E-09	8.6E-10	0.19	0.19	100	1.0E-06	21	9	0.30	49.2	3285	25550

TABLE A.1-3
SCENARIO 1
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	TOTAL RISK
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										7.3E-06 3.2E-06	1.6E-05 MAXIMUM 1.2E-06 MEAN
VOLATILES											
1,1-Dichloroethene	1.4E-10	3.4E-10	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	8.4E-11	2.0E-10		
1,1,1-Trichloroethane	1.5E-10	3.4E-10	No	NA	D		IRIS	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	1.5E-10	3.4E-10	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	8.4E-12	1.9E-11		
1,1,2,2-Tetrachloroethane	1.7E-10	4.5E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	3.5E-11	9.0E-11		
1,2-Dichloroethane	1.4E-10	3.4E-10	No	0.09	B2	Hemanglosarcoma	Gavage/IRIS	1.3E-11	3.1E-11		
1,2-Dichloroethene	1.4E-10	3.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,2-Dichloropropane	1.5E-10	3.4E-10	No	6.80E-02	B2	Liver	Gavage/HEAST	1.0E-11	2.3E-11		
2-Hexanone	3.4E-10	9.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	1.5E-10	3.4E-10	No	2.90E-02	A	Leukemia	Occupational/IRIS	4.2E-12	9.8E-12		
Bromodichloromethane	1.5E-10	3.4E-10	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	1.9E-11	4.4E-11		
Bromoform	1.5E-10	3.4E-10	No	7.90E-03	B2	Ig. Intestin Neoplastic lesion	Gavage/IRIS	1.2E-12	2.7E-12		
Carbon Tetrachloride	1.5E-10	3.4E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	1.9E-11	4.4E-11		
Chlorobenzene	1.6E-10	4.5E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloromethane	2.9E-10	6.4E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	3.7E-12	8.3E-12		
Chloroform	1.4E-10	3.4E-10	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	8.6E-13	2.1E-12		
Dibromochloromethane	1.5E-10	3.4E-10	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	1.2E-11	2.8E-11		
Ethylbenzene	1.6E-10	4.5E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	1.7E-10	4.5E-10	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	5.2E-12	1.4E-11		
Tetrachloroethene	1.5E-10	4.5E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	7.9E-12	2.3E-11		
Toluene	1.5E-10	4.5E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	1.5E-10	3.4E-10	No	1.10E-02	B2	Liver	Gavage/HEAST	1.6E-12	3.7E-12		
Vinyl chloride	2.9E-10	6.4E-10	No	1.90E+00	A	Lung	Diet/HEAST	5.4E-10	1.2E-09		
Xylenes	1.7E-10	4.5E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
SEMIVOLATILES											
1,4-Dichlorobenzene	1.7E-09	1.7E-09	No	2.40E-02	C	Liver	Gavage/HEAST	4.0E-11	4.0E-11		
2-Methylnaphthalene	1.0E-09	4.1E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
2,4-Dichlorophenol	1.7E-09	1.7E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
2,4,5-Trichlorophenol	8.3E-09	8.3E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
3,3-Dichlorobenzidine	2.9E-09	6.0E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.3E-09	2.7E-08		
Acenaphthene	1.2E-09	1.4E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Acenaphthylene	1.3E-09	1.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Anthracene	1.4E-09	2.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzo(a)anthracene	2.6E-09	7.1E-08	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00		
Benzo(a)pyrene	3.1E-09	6.0E-08	No	NA	B2	Lung, Stomach	IRIS	0.0E+00	0.0E+00		
Benzo(b)fluoranthene	3.5E-09	5.6E-08	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00		
Benzo(k)fluoranthene	3.2E-09	5.3E-08	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00		
Bis(2ethylhexyl)phthalate	1.4E-09	3.0E-08	No	1.40E-02	B2	Liver	IRIS	1.9E-11	4.2E-10		
Butylbenzylphthalate	1.1E-09	3.0E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00		
Chrysene	3.1E-09	6.8E-08	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00		
Dibenzofuran	1.0E-09	1.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Dibenzo(ah)anthracene	1.6E-09	3.0E-08	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00		
Diethylphthalate	1.2E-09	1.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Dimethylphthalate	1.7E-09	1.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Di-n-butylphthalate	2.5E-08	2.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Di-n-octylphthalate	1.6E-09	3.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Fluoranthene	5.2E-09	1.7E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Fluorene	1.2E-09	1.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Indeno(123cd)pyrene	2.7E-09	3.3E-08	No	NA	B2	Lung, Skin	IRIS	0.0E+00	0.0E+00		
Naphthalene	1.2E-09	1.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Phenanthrene	3.2E-09	9.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Phenol	1.7E-09	1.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Pyrene	4.7E-09	1.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE A.1-3 (cont.)
SCENARIO 1
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
PESTICIDES									
4,4'-DDD	9.6E-11	7.1E-10	No	2.4E-01	B2	Liver tumor	Oral/IRIS	2.3E-11	1.7E-10
4,4'-DDE	6.0E-11	9.0E-11	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.7E-11	3.1E-11
4,4'-DDT	1.5E-10	6.8E-09	No	3.4E-01	B2	Liver tumor	Diet/IRIS	5.2E-11	2.3E-09
Aldrin	3.6E-11	3.6E-11	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	6.1E-10	6.1E-10
Alpha-BHC	3.6E-11	3.6E-11	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.2E-10	2.2E-10
Alpha-chlordane	3.6E-10	3.6E-10	No					0.0E+00	0.0E+00
Beta-BHC	3.6E-11	3.6E-11	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	6.4E-11	6.4E-11
Dieldrin	7.1E-11	7.1E-11	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	1.1E-09	1.1E-09
Delta-BHC	3.6E-11	3.6E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	3.6E-11	3.6E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	7.1E-11	7.1E-11	No					0.0E+00	0.0E+00
Endosulfan Sulfate	7.1E-11	7.1E-11	No					0.0E+00	0.0E+00
Endrin	7.1E-11	7.1E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	7.1E-11	7.1E-11	No					0.0E+00	0.0E+00
Gamma-BHC	3.6E-11	3.6E-11	No	1.3E+00	B2-C	Liver	Diet/HEAST	4.6E-11	4.6E-11
Gamma-Chlordane	3.6E-10	3.6E-10	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	4.6E-10	4.6E-10
Heptachlor	3.6E-11	3.6E-11	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.6E-10	1.6E-10
Heptachlor epoxide	3.6E-11	3.6E-11	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.2E-10	3.2E-10
Methoxychlor	3.6E-10	3.6E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	7.1E-10	7.1E-10	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	7.9E-10	7.9E-10
PCB's									
Aroclor-1016	3.6E-10	3.6E-10	No	7.7E+00				2.7E-09	2.7E-09
Aroclor-1221	3.6E-10	3.6E-10	No	7.7E+00				2.7E-09	2.7E-09
Aroclor-1232	3.6E-10	3.6E-10	No	7.7E+00				2.7E-09	2.7E-09
Aroclor-1242	3.6E-10	3.6E-10	No	7.7E+00				2.7E-09	2.7E-09
Aroclor-1248	3.6E-10	3.6E-10	No	7.7E+00				2.7E-09	2.7E-09
Aroclor-1254	8.3E-10	2.3E-09	No	7.7E+00				6.4E-09	1.8E-08
Aroclor-1260	7.1E-10	7.1E-10	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	5.5E-09	5.5E-09

TABLE A.1-4
SCENARIO 1
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK - MEAN	CHEMICAL SPECIFIC RISK - MAX	TOTAL PATHWAY RISK	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										1.8E-05	MAXIMUM
										1.1E-06	MEAN
INORGANICS											
Antimony	1.0E-07	1.4E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	7.6E-06	3.0E-07	No	1.75E+00	A	Skin	Water/IRIS	1.4E-07	5.3E-07		
Beryllium	7.1E-09	2.6E-06	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	3.0E-08	1.1E-07		
Cadmium	1.1E-06	3.3E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	2.8E-07	1.0E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	1.4E-07	3.0E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	1.3E-06	9.1E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	7.4E-07	1.5E-05	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00		
Manganese	5.8E-06	1.0E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	7.5E-10	2.4E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	3.2E-07	1.6E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Selenium	5.4E-09	3.0E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	3.7E-06	2.9E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	5.6E-11	1.4E-10	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	3.4E-11	8.1E-11		
1,1,1-Trichloroethane	6.2E-11	1.4E-10	No	NA	D		IRIS	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	5.9E-11	1.4E-10	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.4E-12	7.7E-12		
1,1,2,2-Tetrachloroethane	7.0E-11	1.8E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.4E-11	3.6E-11		
1,2-Dichloroethane	5.6E-11	1.4E-10	No	0.09	B2	Hemanglosarcoma	Gavage/IRIS	5.1E-12	1.2E-11		
1,2-Dichloroethene	5.6E-11	1.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,2-Dichloropropane	6.0E-11	1.4E-10	No	6.80E-02	B2	Liver	Gavage/HEAST	4.1E-12	9.2E-12		
2-Hexanone	1.4E-10	3.8E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	5.9E-11	1.4E-10	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.7E-12	3.8E-12		
Bromodichloromethane	5.9E-11	1.4E-10	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	7.6E-12	1.6E-11		
Bromoform	5.9E-11	1.4E-10	No	7.90E-03	B2	lg. intestin Neoplastic lesion	Gavage/IRIS	4.6E-13	1.1E-12		
Carbon Tetrachloride	5.9E-11	1.4E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	7.6E-12	1.8E-11		
Chlorobenzene	6.5E-11	1.8E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloromethane	1.1E-10	2.6E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.5E-12	3.3E-12		
Chloroform	5.6E-11	1.4E-10	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	3.4E-13	8.3E-13		
Dibromochloromethane	5.9E-11	1.4E-10	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	4.9E-12	1.1E-11		
Ethylbenzene	6.5E-11	1.8E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	7.0E-11	1.8E-10	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	2.1E-12	5.4E-12		
Tetrachloroethene	6.2E-11	1.8E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	3.2E-12	9.2E-12		
Toluene	6.0E-11	1.8E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	5.9E-11	1.4E-10	No	1.10E-02	B2	Liver	Gavage/HEAST	6.4E-13	1.5E-12		
Vinyl chloride	1.1E-10	2.6E-10	No	1.90E+00	A	Lung	Diet/HEAST	2.2E-10	4.9E-10		
Xylenes	7.0E-11	1.8E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE A.1-4 (cont.)
SCENARIO 1
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL									
SEMIVOLATILES									
1,4-Dichloroberzene	6.6E-09	6.6E-09	No	2.40E-02	C	Liver	Gavage/HEAST	1.6E-10	1.6E-10
2-Methylnaphthalene	4.0E-09	1.7E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	6.6E-09	6.6E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	3.3E-08	3.3E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	1.2E-08	2.4E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	5.2E-09	1.1E-07
Acenaphthene	4.8E-09	5.7E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	5.1E-09	6.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	5.6E-09	1.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	1.0E-08	2.9E-07	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	1.2E-07	3.3E-06
Benzo(a)pyrene	1.3E-08	2.4E-07	No	1.15E+01	B2	Lung, Stomach	IRIS	1.4E-07	2.8E-06
Benzo(b)fluoranthene	1.4E-08	2.3E-07	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.6E-07	2.6E-06
Benzo(ghi)perylene	1.1E-08	1.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	1.3E-08	2.1E-07	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.5E-07	2.4E-06
Bis(2ethylhexyl)phthalate	5.5E-09	1.2E-07	No	1.40E-02	B2	Liver	IRIS	7.7E-11	1.7E-09
Butylberzylphthalate	4.2E-09	1.2E-07	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00
Chrysene	1.2E-08	2.7E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.4E-07	3.1E-06
Dibenzofuran	4.1E-09	4.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzo(ah)anthracene	6.4E-09	1.2E-07	No	1.15E+01	B2	Lung, Mammary	IRIS	7.4E-08	1.4E-06
Diethylphthalate	4.8E-09	6.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	6.6E-09	6.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	1.0E-07	1.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	6.3E-09	1.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	2.1E-08	6.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	4.9E-09	7.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	1.1E-08	1.3E-07	No	1.15E+01	B2	Lung, Skin	IRIS	1.2E-07	1.5E-06
Naphthalene	4.7E-09	4.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	1.3E-08	3.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	6.6E-09	6.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	1.9E-08	4.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES		0.0E+00							
		0.0E+00							
4,4'-DDD	1.2E-10	6.6E-10	No	2.4E-01	B2	Liver tumor	Oral/IRIS	2.8E-11	2.1E-10
4,4'-DDE	9.7E-11	1.1E-10	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	3.3E-11	3.7E-11
4,4'-DDT	1.6E-10	8.1E-09	No	3.4E-01	B2	Liver tumor	Diet/IRIS	8.3E-11	2.8E-09
Aldrin	4.3E-11	4.3E-11	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	7.3E-10	7.3E-10
Alpha-BHC	4.3E-11	4.3E-11	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.7E-10	2.7E-10
Alpha-chlordane	4.3E-10	4.3E-10	No					0.0E+00	0.0E+00
Beta-BHC	4.3E-11	4.3E-11	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	7.7E-11	7.7E-11
Deldrin	6.6E-11	6.6E-11	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	1.4E-09	1.4E-09
Delta-BHC	4.3E-11	4.3E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	4.3E-11	4.3E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	8.6E-11	8.6E-11	No					0.0E+00	0.0E+00
Endosulfan Sulfate	8.6E-11	8.6E-11	No					0.0E+00	0.0E+00
Endrin	8.6E-11	8.6E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	8.6E-11	8.6E-11	No					0.0E+00	0.0E+00
Gamma-BHC	4.3E-11	4.3E-11	No	1.3E+00	B2-C	Liver	Diet/HEAST	5.6E-11	5.6E-11
Gamma-Chlordane	4.3E-10	4.3E-10	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	5.6E-10	5.6E-10
Heptachlor	4.3E-11	4.3E-11	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.9E-10	1.9E-10
Heptachlor epoxide	4.3E-11	4.3E-11	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.9E-10	3.9E-10
Methoxychlor	4.3E-10	4.3E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	8.6E-10	8.6E-10	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	9.4E-10	9.4E-10
PCB's									
Aroclor-1016	4.3E-10	4.3E-10	No	7.7E+00				3.3E-09	3.3E-09
Aroclor-1221	4.3E-10	4.3E-10	No	7.7E+00				3.3E-09	3.3E-09
Aroclor-1232	4.3E-10	4.3E-10	No	7.7E+00				3.3E-09	3.3E-09
Aroclor-1242	4.3E-10	4.3E-10	No	7.7E+00				3.3E-09	3.3E-09
Aroclor-1248	4.3E-10	4.3E-10	No	7.7E+00				3.3E-09	3.3E-09
Aroclor-1254	9.8E-10	2.8E-09	No	7.7E+00				7.6E-09	2.1E-08
Aroclor-1260	8.6E-10	8.6E-10	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	6.6E-09	6.6E-09

TABLE A.1-5
SCENARIO 1
CHRONIC HAZARD INDEX RATIOS
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	PATHWAY HAZARD INDEX (HI)	
												1.4E-03	7.0E-02	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												2.3E-04	4.7E-03	MEAN
VOLATILES														
1,1-Dichloroethene	1.1E-09	2.6E-09	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	1.2E-07	2.9E-07			
1,1,1-Trichloroethane	1.2E-09	2.6E-09	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	1.3E-08	2.9E-08			
1,1,2-Trichloroethane	1.1E-09	2.6E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	2.9E-07	6.6E-07			
1,1,2,2-Tetrachloroethane	1.4E-09	3.5E-09	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethane	1.1E-09	2.6E-09	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethene	1.1E-09	2.6E-09	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		1.1E-07	2.6E-07			
1,2-Dichloropropane	1.2E-09	2.6E-09	No	NA			NA/HEAST			NA	NA			
2-Hexanone	2.7E-09	7.3E-09	No	NA			NA/IRIS,HEAST			NA	NA			
Benzene	1.1E-09	2.6E-09	No	NA			NA/IRIS,HEAST			NA	NA			
Bromodichloromethane	1.1E-09	2.6E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	5.7E-08	1.3E-07			
Bromoform	1.1E-09	2.6E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	5.7E-08	1.3E-07			
Carbon Tetrachloride	1.1E-09	2.6E-09	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	1.6E-06	3.8E-06			
Chlorobenzene	1.3E-09	3.5E-09	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		6.3E-08	1.8E-07			
Chloromethane	2.2E-09	5.0E-09	No	NA			NA/IRIS,HEAST			NA	NA			
Chloroform	1.1E-09	2.6E-09	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	1.1E-07	2.6E-07			
Dibromochloromethane	1.1E-09	2.6E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	5.7E-08	1.3E-07			
Ethylbenzene	1.3E-09	3.5E-09	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	1.3E-08	3.5E-08			
Styrene	1.4E-09	3.5E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	6.8E-09	1.8E-08			
Tetrachloroethene	1.2E-09	3.5E-09	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	1.2E-07	3.5E-07			
Toluene	1.2E-09	3.5E-09	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	5.8E-09	1.8E-08			
Trichloroethene	1.1E-09	2.6E-09	No	NA			NA/IRIS,HEAST			NA	NA			
Vinyl chloride	2.2E-09	5.0E-09	No	NA			NA/IRIS,HEAST			NA	NA			
Xylenes	1.4E-09	3.5E-09	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	6.8E-10	1.8E-09			

TABLE A.1-5 (cont.)
SCENARIO 1
CHRONIC HAZARD INDEX RATIOS
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL											
SEMIVOLATILES											
1,4-Dichlorobenzene	1.3E-08	1.3E-08	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	7.8E-09	3.2E-08	No	4E-03			NA/IRIS,HEAST			1.9E-06	8.0E-06
2,4-Dichlorophenol	1.3E-08	1.3E-08	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	4.3E-06	4.3E-06
2,4,5-Trichlorophenol	6.4E-08	6.4E-08	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	6.4E-07	6.4E-07
3,3-Dichlorobenzidine	2.3E-08	4.7E-07	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	9.4E-09	1.1E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	1.6E-07	1.9E-06
Acenaphthylene	9.9E-09	1.3E-08	No	4E-03			NA/IRIS,HEAST			2.5E-06	3.2E-06
Anthracene	1.1E-08	2.0E-07	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	3.7E-08	6.6E-07
Benzo(a)anthracene	2.0E-08	5.6E-07	No	4E-03			NA/IRIS,HEAST			5.1E-06	1.4E-04
Benzo(a)pyrene	2.4E-08	4.7E-07	No	4E-03			NA/IRIS,HEAST			6.1E-06	1.2E-04
Benzo(b)fluoranthene	2.6E-08	4.4E-07	No	4E-03			NA/IRIS,HEAST			6.9E-06	1.1E-04
Benzo(ghi)perylene	2.1E-08	2.5E-07	No	4E-03			NA/IRIS,HEAST			5.4E-06	6.1E-05
Benzo(k)fluoranthene	2.5E-08	4.1E-07	No	4E-03			NA/IRIS,HEAST			6.1E-06	1.0E-04
Bis(2ethylhexyl)phthalate	1.1E-08	2.3E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	5.4E-07	1.2E-05
Butylbenzylphthalate	8.2E-09	2.3E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	4.1E-08	1.2E-06
Chrysene	2.4E-08	5.3E-07	No	4E-03			NA/HEAST			6.0E-06	1.3E-04
Dibenzofuran	8.0E-09	8.2E-08	No	4E-03			NA/HEAST	1000		2.0E-06	2.0E-05
Dibenzo(ah)anthracene	1.3E-08	2.3E-07	No	4E-03			NA/IRIS,HEAST			3.1E-06	5.8E-05
Diethylphthalate	9.5E-09	1.3E-08	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	1.2E-08	1.6E-08
Dimethylphthalate	1.3E-08	1.3E-08	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		1.3E-08	1.3E-08
Di-n-butylphthalate	2.0E-07	2.0E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	2.0E-06	2.0E-06
Di-n-octylphthalate	1.2E-08	2.3E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		6.1E-07	1.2E-05
Fluoranthene	4.1E-08	1.3E-06	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	1.0E-06	3.4E-05
Fluorene	9.6E-09	1.4E-07	No	4E-02	Low		Gavage/IRIS	3000	1	2.4E-07	3.4E-06
Indeno(123cd)pyrene	2.1E-08	2.6E-07	No	4E-03			NA/IRIS,HEAST			5.2E-06	6.5E-05
Naphthalene	9.1E-09	8.8E-08	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		2.3E-06	2.2E-05
Phenanthrene	2.5E-08	7.6E-07	No	4E-03			NA/HEAST			6.2E-06	1.9E-04
Phenol	1.3E-08	1.3E-08	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	2.1E-08	2.1E-08
Pyrene	3.7E-08	7.9E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.2E-06	2.6E-05
PESTICIDES											
4,4'-DDD	7.5E-10	5.6E-09	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	6.3E-10	7.0E-10	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	1.2E-09	5.3E-08	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	2.4E-06	1.1E-04
Aldrin	2.6E-10	2.6E-10	No	3.0E-05	Medium	Liver toxicty	Diet/IRIS	1000	1	9.3E-06	9.3E-06
Alpha-BHC	2.6E-10	2.6E-10	No	NA			NA/IRIS,HEAST			NA	NA
Alpha-chlordane	2.6E-09	2.6E-09	No	6.0E-05			Diet/IRIS			4.6E-05	4.6E-05
Beta-BHC	2.6E-10	2.6E-10	No	NA			NA/IRIS,HEAST			NA	NA
Dieldrin	5.6E-10	5.6E-10	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	1.1E-05	1.1E-05
Delta-BHC	2.6E-10	2.6E-10	No	NA			NA/IRIS,HEAST			NA	NA
Endosulfan I	2.6E-10	2.6E-10	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	5.6E-06	5.6E-06
Endosulfan II	5.6E-10	5.6E-10	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	1.1E-05	1.1E-05
Endosulfan Sulfate	5.6E-10	5.6E-10	No	NA			NA/IRIS,HEAST			NA	NA
Endrin	5.6E-10	5.6E-10	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	1.9E-06	1.9E-06
Endrin ketone	5.6E-10	5.6E-10	No	NA			NA/IRIS,HEAST			NA	NA
Gamma-BHC	2.6E-10	2.6E-10	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	9.3E-07	9.3E-07
Gamma-Chlordane	2.6E-09	2.6E-09	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	4.6E-05	4.6E-05
Heptachlor	2.6E-10	2.6E-10	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	5.6E-07	5.6E-07
Heptachlor epoxide	2.6E-10	2.6E-10	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	2.1E-05	2.1E-05
Methoxychlor	2.6E-09	2.6E-09	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	5.6E-07	5.6E-07
Toxaphene	5.6E-09	5.6E-09	No	NA			NA/IRIS,HEAST			NA	NA
PCB's											
Arodor-1016	2.6E-09	2.6E-09	No							NA	NA
Arodor-1221	2.6E-09	2.6E-09	No							NA	NA
Arodor-1232	2.6E-09	2.6E-09	No							NA	NA
Arodor-1242	2.6E-09	2.6E-09	No							NA	NA
Arodor-1248	2.6E-09	2.6E-09	No							NA	NA
Arodor-1254	6.4E-09	1.6E-08	No							NA	NA
Arodor-1260	5.6E-09	5.6E-09	No	NA			NA/IRIS,HEAST			NA	NA

TABLE A.1-6
SCENARIO 1
CHRONIC HAZARD INDEX RATIOS
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												6.9E-02 MAXIMUM 4.5E-03 MEAN
INORGANICS												
Antimony	8.0E-07	1.1E-05	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	2.0E-03	2.7E-02	
Arsenic	6.1E-07	2.3E-06	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		6.1E-04	2.3E-03	
Beryllium	5.5E-08	2.0E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	1.1E-05	4.0E-05	
Cadmium	8.6E-08	2.5E-06	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	8.6E-05	2.5E-03	
Chromium	2.1E-06	8.1E-06	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	4.3E-04	1.6E-03	
Cobalt	1.1E-06	2.4E-06	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	1.0E-05	7.1E-04	No	4E-02		Local GI irritation	HEAST			2.5E-04	1.8E-02	
Lead	5.8E-06	1.2E-04	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Manganese	4.5E-05	7.9E-05	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	4.5E-04	7.9E-04	
Mercury	5.8E-09	1.9E-07	No	3E-04		Kidney effects	Oral/HEAST	1000		1.9E-05	6.2E-04	
Nickel	2.5E-06	1.2E-05	No	NA			NA/IRIS,HEAST			NA	NA	
Selenium	4.2E-06	2.3E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	8.3E-06	4.7E-05	
Zinc	2.9E-05	2.2E-03	No	2E-01		Anemia	Therapeutic/HEAST	10		1.4E-04	1.1E-02	
VOLATILES												
1,1-Dichloroethene	4.4E-10	1.1E-09	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	4.9E-08	1.2E-07	
1,1,1-Trichloroethane	4.8E-10	1.1E-09	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	5.3E-09	1.2E-08	
1,1,2-Trichloroethane	4.6E-10	1.1E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.1E-07	2.6E-07	
1,1,2,2-Tetrachloroethane	5.4E-10	1.4E-09	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloroethane	4.4E-10	1.1E-09	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloroethene	4.4E-10	1.1E-09	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		4.4E-08	1.1E-07	
1,2-Dichloropropane	4.7E-10	1.1E-09	No	NA			NA/HEAST			NA	NA	
2-Hexanone	1.1E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Benzene	4.6E-10	1.1E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Bromodichloromethane	4.6E-10	1.1E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	2.3E-08	5.3E-08	
Bromoform	4.6E-10	1.1E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	2.3E-08	5.3E-08	
Carbon Tetrachloride	4.6E-10	1.1E-09	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	6.5E-07	1.5E-06	
Chlorobenzene	5.1E-10	1.4E-09	No	2E-02	Medium	Liver and kidney effects	Oral/IRIS,HEAST	1000		2.5E-08	7.0E-08	
Chloromethane	8.9E-10	2.0E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Chloroform	4.4E-10	1.1E-09	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	4.4E-08	1.1E-07	
Dibromochloromethane	4.6E-10	1.1E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	2.3E-08	5.3E-08	
Ethylbenzene	5.1E-10	1.4E-09	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	5.1E-09	1.4E-08	
Styrene	5.4E-10	1.4E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	2.7E-09	7.0E-09	
Tetrachloroethene	4.8E-10	1.4E-09	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	4.8E-08	1.4E-07	
Toluene	4.6E-10	1.4E-09	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	2.3E-09	7.0E-09	
Trichloroethene	4.6E-10	1.1E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Vinyl chloride	8.9E-10	2.0E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Xylenes	5.4E-10	1.4E-09	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	2.7E-10	7.0E-10	

TABLE A.1-6 (cont.)
SCENARIO 1
CHRONIC HAZARD INDEX RATIOS
MCALLISTER POINT LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL*											
SEMIVOLATILES											
1,4-Dichloroberzene	5.1E-08	5.1E-08	No	NA			NA/RIS,HEAST			NA	NA
2-Methylnaphthalene	3.1E-06	1.3E-07	No	4E-03			NA/RIS,HEAST			7.8E-06	3.2E-05
2,4-Dichlorophenol	5.1E-06	5.1E-06	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	1.7E-05	1.7E-05
2,4,5-Trichlorophenol	2.6E-07	2.6E-07	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	2.6E-06	2.6E-06
3,3-Dichloroberzidine	9.0E-06	1.9E-06	No	NA			NA/RIS,HEAST			NA	NA
Acenaphthene	3.8E-06	4.4E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	6.3E-07	7.4E-06
Acenaphthylene	4.0E-06	5.1E-06	No	4E-03			NA/RIS,HEAST			9.9E-06	1.3E-05
Anthracene	4.5E-06	8.0E-07	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	1.5E-07	2.7E-06
Benzo(a)anthracene	8.1E-06	2.2E-06	No	4E-03			NA/RIS,HEAST			2.0E-05	5.6E-04
Benzo(a)pyrene	9.8E-06	1.9E-06	No	4E-03			NA/RIS,HEAST			2.4E-05	4.7E-04
Benzo(b)fluoranthene	1.1E-07	1.6E-06	No	4E-03			NA/RIS,HEAST			2.8E-05	4.4E-04
Benzo(ghi)perylene	8.6E-06	9.8E-07	No	4E-03			NA/RIS,HEAST			2.1E-05	2.5E-04
Benzo(k)fluoranthene	9.8E-06	1.6E-06	No	4E-03			NA/RIS,HEAST			2.5E-05	4.1E-04
Bis(2ethylhexyl)phthalate	4.3E-06	9.2E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.2E-06	4.6E-05
Butylbenzylphthalate	3.3E-06	9.2E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	1.6E-07	4.6E-06
Chrysene	9.6E-06	2.1E-06	No	4E-03			NA/HEAST			2.4E-05	5.3E-04
Dibenzofuran	3.2E-06	3.3E-07	No	4E-03			NA/HEAST	1000		8.0E-06	8.2E-05
Dibenzo(ah)anthracene	5.0E-06	9.2E-07	No	4E-03			NA/RIS,HEAST			1.3E-05	2.3E-04
Diethylphthalate	3.8E-06	5.1E-06	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	4.7E-06	6.4E-06
Dimethylphthalate	5.1E-06	5.1E-06	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		5.1E-06	5.1E-06
Di-n-butylphthalate	7.8E-07	7.8E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	7.8E-06	7.8E-06
Di-n-octylphthalate	4.9E-06	9.2E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		2.5E-06	4.6E-05
Fluoranthene	1.6E-07	5.4E-06	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	4.1E-06	1.3E-04
Fluorene	3.6E-06	5.5E-07	No	4E-02	Low		Gavage/IRIS	3000	1	9.6E-07	1.4E-05
Indeno(123cd)pyrene	8.4E-06	1.0E-06	No	4E-03			NA/RIS,HEAST			2.1E-05	2.6E-04
Naphthalene	3.6E-06	3.5E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		9.1E-06	8.8E-05
Phenanthrene	9.9E-06	3.0E-06	No	4E-03			NA/HEAST			2.5E-05	7.6E-04
Phenol	5.1E-06	5.1E-06	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	8.6E-06	8.6E-06
Pyrene	1.5E-07	3.2E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	4.9E-06	1.1E-04
PESTICIDES											
4,4'-DDD	8.9E-10	6.7E-09	No	NA			NA/RIS,HEAST			NA	NA
4,4'-DDE	7.5E-10	6.4E-10	No	NA			NA/RIS,HEAST			NA	NA
4,4'-DDT	1.4E-09	6.3E-06	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	2.9E-06	1.3E-04
Aldrin	3.3E-10	3.3E-10	No	3.0E-05	Medium	Liver toxicty	Diet/IRIS	1000	1	1.1E-05	1.1E-05
Alpha-BHC	3.3E-10	3.3E-10	No	NA			NA/RIS,HEAST			NA	NA
Alpha-chlordane	3.3E-09	3.3E-09	No	6.0E-05			Diet/IRIS			5.6E-05	5.6E-05
Beta-BHC	3.3E-10	3.3E-10	No	NA			NA/RIS,HEAST			NA	NA
Deldrin	6.7E-10	6.7E-10	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	1.3E-05	1.3E-05
Delta-BHC	3.3E-10	3.3E-10	No	NA			NA/RIS,HEAST			NA	NA
Endosulfan I	3.3E-10	3.3E-10	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	6.7E-06	6.7E-06
Endosulfan II	6.7E-10	6.7E-10	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	1.3E-05	1.3E-05
Endosulfan Sulfate	6.7E-10	6.7E-10	No	NA			NA/RIS,HEAST			NA	NA
Endrin	6.7E-10	6.7E-10	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	2.2E-06	2.2E-06
Endrin ketone	6.7E-10	6.7E-10	No	NA			NA/RIS,HEAST			NA	NA
Gamma-BHC	3.3E-10	3.3E-10	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	1.1E-06	1.1E-06
Gamma-Chlordane	3.3E-09	3.3E-09	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	5.6E-05	5.6E-05
Heptachlor	3.3E-10	3.3E-10	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	6.7E-07	6.7E-07
Heptachlor epoxide	3.3E-10	3.3E-10	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	2.6E-05	2.6E-05
Methoxychlor	3.3E-09	3.3E-09	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	6.7E-07	6.7E-07
Toxaphene	6.7E-09	6.7E-09	No	NA			NA/RIS,HEAST			NA	NA
PCB's											
Arodor-1016	3.3E-09	3.3E-09	No							NA	NA
Arodor-1221	3.3E-09	3.3E-09	No							NA	NA
Arodor-1232	3.3E-09	3.3E-09	No							NA	NA
Arodor-1242	3.3E-09	3.3E-09	No							NA	NA
Arodor-1248	3.3E-09	3.3E-09	No							NA	NA
Arodor-1254	7.7E-09	2.1E-08	No							NA	NA
Arodor-1260	6.7E-09	6.7E-09	No	NA			NA/RIS,HEAST			NA	NA

TABLE A.2-1
SCENARIO 2
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS DOSE CHILD CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.8	91.4	1.0E-06	500	0.00	104	12	43.2	4380	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.2	20.0	1.0E-06	500	0.00	104	12	43.2	4380	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.5	1.7	1.0E-06	500	0.00	104	12	43.2	4380	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.7	21.8	1.0E-06	500	0.00	104	12	43.2	4380	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.3	69.2	1.0E-06	500	0.00	104	12	43.2	4380	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.4	20.2	1.0E-06	500	0.00	104	12	43.2	4380	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.2	6070.0	1.0E-06	500	0.00	104	12	43.2	4380	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	98.8	1980.0	1.0E-06	500	0.00	104	12	43.2	4380	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	382.5	678.0	1.0E-06	500	0.00	104	12	43.2	4380	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.1	1.6	1.0E-06	500	0.00	104	12	43.2	4380	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	21.5	105.0	1.0E-06	500	0.00	104	12	43.2	4380	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.4	2.0	1.0E-06	500	0.00	104	12	43.2	4380	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	245.2	19200.0	1.0E-06	500	0.00	104	12	43.2	4380	25550
VOLATILES														
1,1-Dichloroethene	6.2E-09	1.1E-09	1.5E-08	2.5E-09	0.0037	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
1,1,1-Trichloroethane	6.8E-09	1.2E-09	1.5E-08	2.5E-09	0.0041	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
1,1,2-Trichloroethane	6.4E-09	1.1E-09	1.5E-08	2.5E-09	0.0039	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
1,1,2,2-Tetrachloroethane	7.6E-09	1.3E-09	2.0E-08	3.4E-09	0.0046	0.0120	1.0E-06	500	0.50	104	12	43.2	4380	25550
1,2-Dichloroethane	6.2E-09	1.1E-09	1.5E-08	2.5E-09	0.0037	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
1,2-Dichloroethene	6.2E-09	1.1E-09	1.5E-08	2.5E-09	0.0037	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
1,2-Dichloropropane	6.6E-09	1.1E-09	1.5E-08	2.5E-09	0.0040	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
2-Hexanone	1.5E-08	2.6E-09	4.1E-08	7.1E-09	0.0091	0.0250	1.0E-06	500	0.50	104	12	43.2	4380	25550
Benzene	6.4E-09	1.1E-09	1.5E-08	2.5E-09	0.0039	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
Bromodichloromethane	6.4E-09	1.1E-09	1.5E-08	2.5E-09	0.0039	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
Bromoform	6.4E-09	1.1E-09	1.5E-08	2.5E-09	0.0039	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
Carbon Tetrachloride	6.4E-09	1.1E-09	1.5E-08	2.5E-09	0.0039	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
Chlorobenzene	7.1E-09	1.2E-09	2.0E-08	3.4E-09	0.0043	0.0120	1.0E-06	500	0.50	104	12	43.2	4380	25550
Chloromethane	1.3E-08	2.2E-09	2.8E-08	4.8E-09	0.0076	0.0170	1.0E-06	500	0.50	104	12	43.2	4380	25550
Chloroform	6.2E-09	1.1E-09	1.5E-08	2.5E-09	0.0037	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
Dibromochloromethane	6.4E-09	1.1E-09	1.5E-08	2.5E-09	0.0039	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
Ethylbenzene	7.1E-09	1.2E-09	2.0E-08	3.4E-09	0.0043	0.0120	1.0E-06	500	0.50	104	12	43.2	4380	25550
Styrene	7.6E-09	1.3E-09	2.0E-08	3.4E-09	0.0046	0.0120	1.0E-06	500	0.50	104	12	43.2	4380	25550
Tetrachloroethene	6.8E-09	1.2E-09	2.0E-08	3.4E-09	0.0041	0.0120	1.0E-06	500	0.50	104	12	43.2	4380	25550
Toluene	6.5E-09	1.1E-09	2.0E-08	3.4E-09	0.0040	0.0120	1.0E-06	500	0.50	104	12	43.2	4380	25550
Trichloroethene	6.4E-09	1.1E-09	1.5E-08	2.5E-09	0.0039	0.0090	1.0E-06	500	0.50	104	12	43.2	4380	25550
Vinyl chloride	1.3E-08	2.2E-09	2.8E-08	4.8E-09	0.0076	0.0170	1.0E-06	500	0.50	104	12	43.2	4380	25550
Xylenes	7.6E-09	1.3E-09	2.0E-08	3.4E-09	0.0046	0.0120	1.0E-06	500	0.50	104	12	43.2	4380	25550

TABLE A.2-1 (cont.)
SCENARIO 2
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS DOSE CHILD CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	7.3E-08	1.2E-08	7.3E-08	1.2E-08	0.44	0.44	1.0E-06	500	0.05	104	12	43.2	4380	25550
2-Methylnaphthalene	4.4E-08	7.5E-09	1.8E-07	3.1E-08	0.27	1.10	1.0E-06	500	0.05	104	12	43.2	4380	25550
2,4-Dichlorophenol	7.3E-08	1.2E-08	7.3E-08	1.2E-08	0.44	0.44	1.0E-06	500	0.05	104	12	43.2	4380	25550
2,4,5-Trichlorophenol	3.6E-07	6.2E-08	3.6E-07	6.2E-08	2.20	2.20	1.0E-06	500	0.05	104	12	43.2	4380	25550
3,3-Dichlorobenzidine	1.3E-07	2.2E-08	2.6E-06	4.5E-07	0.77	16.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Acenaphthene	5.3E-08	9.1E-09	6.3E-07	1.1E-07	0.32	3.80	1.0E-06	500	0.05	104	12	43.2	4380	25550
Acenaphthylene	5.6E-08	9.6E-09	7.3E-08	1.2E-08	0.34	0.44	1.0E-06	500	0.05	104	12	43.2	4380	25550
Anthracene	6.3E-08	1.1E-08	1.1E-06	1.9E-07	0.38	6.80	1.0E-06	500	0.05	104	12	43.2	4380	25550
Benzo(a)anthracene	1.1E-07	2.0E-08	3.1E-06	5.4E-07	0.70	19.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Benzo(a)pyrene	1.4E-07	2.4E-08	2.6E-06	4.5E-07	0.84	16.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Benzo(b)fluoranthene	1.6E-07	2.7E-08	2.5E-06	4.2E-07	0.94	15.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Benzo(ghi)perylene	1.2E-07	2.1E-08	1.4E-06	2.4E-07	0.74	8.40	1.0E-06	500	0.05	104	12	43.2	4380	25550
Benzo(k)fluoranthene	1.4E-07	2.4E-08	2.3E-06	4.0E-07	0.84	14.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Bis(2ethylhexyl)phthalate	6.1E-08	1.0E-08	1.3E-06	2.2E-07	0.37	7.90	1.0E-06	500	0.05	104	12	43.2	4380	25550
Butylbenzylphthalate	4.6E-08	7.9E-09	1.3E-06	2.2E-07	0.28	7.90	1.0E-06	500	0.05	104	12	43.2	4380	25550
Chrysene	1.4E-07	2.3E-08	3.0E-06	5.1E-07	0.82	18.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Dibenzofuran	4.5E-08	7.7E-09	4.6E-07	7.9E-08	0.27	2.80	1.0E-06	500	0.05	104	12	43.2	4380	25550
Dibenzo(ah)anthracene	7.1E-08	1.2E-08	1.3E-06	2.2E-07	0.43	7.90	1.0E-06	500	0.05	104	12	43.2	4380	25550
Diethylphthalate	5.4E-08	9.2E-09	7.3E-08	1.2E-08	0.32	0.44	1.0E-06	500	0.05	104	12	43.2	4380	25550
Dimethylphthalate	7.3E-08	1.2E-08	7.3E-08	1.2E-08	0.44	0.44	1.0E-06	500	0.05	104	12	43.2	4380	25550
Di-n-butylphthalate	1.1E-06	1.9E-07	1.1E-06	1.9E-07	6.70	6.70	1.0E-06	500	0.05	104	12	43.2	4380	25550
Di-n-octylphthalate	6.9E-08	1.2E-08	1.3E-06	2.2E-07	0.42	7.90	1.0E-06	500	0.05	104	12	43.2	4380	25550
Fluoranthene	2.3E-07	3.9E-08	7.6E-06	1.3E-06	1.39	46.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Fluorene	5.4E-08	9.3E-09	7.7E-07	1.3E-07	0.33	4.70	1.0E-06	500	0.05	104	12	43.2	4380	25550
Indeno(123cd)pyrene	1.2E-07	2.0E-08	1.5E-06	2.5E-07	0.72	8.90	1.0E-06	500	0.05	104	12	43.2	4380	25550
Naphthalene	5.1E-08	8.8E-09	4.9E-07	8.5E-08	0.31	3.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Phenanthrene	1.4E-07	2.4E-08	4.3E-06	7.3E-07	0.85	26.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
Phenol	7.3E-08	1.2E-08	7.3E-08	1.2E-08	0.44	0.44	1.0E-06	500	0.05	104	12	43.2	4380	25550
Pyrene	2.1E-07	3.6E-08	4.5E-06	7.6E-07	1.26	27.00	1.0E-06	500	0.05	104	12	43.2	4380	25550
PESTICIDES														
4,4'-DDD	4.2E-09	7.2E-10	3.1E-08	5.4E-09	0.028	0.190	1.0E-06	500	0.05	104	12	43.2	4380	25550
4,4'-DDE	3.5E-09	6.0E-10	4.0E-09	6.8E-10	0.021	0.024	1.0E-06	500	0.05	104	12	43.2	4380	25550
4,4'-DDT	6.8E-09	1.2E-09	3.0E-07	5.1E-08	0.041	1.800	1.0E-06	500	0.05	104	12	43.2	4380	25550
Aldrin	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Alpha-BHC	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Alpha-chlordane	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.095	0.095	1.0E-06	500	0.05	104	12	43.2	4380	25550
Beta-BHC	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Delidrin	3.1E-09	5.4E-10	3.1E-09	5.4E-10	0.019	0.019	1.0E-06	500	0.05	104	12	43.2	4380	25550
Delta-BHC	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Endosulfan I	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Endosulfan II	3.1E-09	5.4E-10	3.1E-09	5.4E-10	0.019	0.019	1.0E-06	500	0.05	104	12	43.2	4380	25550
Endosulfan Sulfate	3.1E-09	5.4E-10	3.1E-09	5.4E-10	0.019	0.019	1.0E-06	500	0.05	104	12	43.2	4380	25550
Endrin	3.1E-09	5.4E-10	3.1E-09	5.4E-10	0.019	0.019	1.0E-06	500	0.05	104	12	43.2	4380	25550
Endrin ketone	3.1E-09	5.4E-10	3.1E-09	5.4E-10	0.019	0.019	1.0E-06	500	0.05	104	12	43.2	4380	25550
Gamma-BHC	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Gamma-chlordane	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.095	0.095	1.0E-06	500	0.05	104	12	43.2	4380	25550
Heptachlor	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Heptachlor epoxide	1.6E-09	2.7E-10	1.6E-09	2.7E-10	0.010	0.010	1.0E-06	500	0.05	104	12	43.2	4380	25550
Methoxychlor	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.095	0.095	1.0E-06	500	0.05	104	12	43.2	4380	25550
Toxaphene	3.1E-08	5.4E-09	3.1E-08	5.4E-09	0.190	0.190	1.0E-06	500	0.05	104	12	43.2	4380	25550
PCB's														
Aroclor-1016	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.10	0.10	1.0E-06	500	0.05	104	12	43.2	4380	25550
Aroclor-1221	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.10	0.10	1.0E-06	500	0.05	104	12	43.2	4380	25550
Aroclor-1232	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.10	0.10	1.0E-06	500	0.05	104	12	43.2	4380	25550
Aroclor-1242	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.10	0.10	1.0E-06	500	0.05	104	12	43.2	4380	25550
Aroclor-1248	1.6E-08	2.7E-09	1.6E-08	2.7E-09	0.10	0.10	1.0E-06	500	0.05	104	12	43.2	4380	25550
Aroclor-1254	3.6E-08	6.2E-09	1.0E-07	1.7E-08	0.22	0.61	1.0E-06	500	0.05	104	12	43.2	4380	25550
Aroclor-1260	3.1E-08	5.4E-09	3.1E-08	5.4E-09	0.19	0.19	1.0E-06	500	0.05	104	12	43.2	4380	25550

TABLE A.2-2
SCENARIO 2
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	4.5E-06	7.7E-07	6.0E-05	1.0E-05	6.84	91.40	100	1.0E-06	104	12	1.00	43.2	4380	25550
Arsenic	3.4E-06	5.9E-07	1.3E-05	2.3E-06	5.19	20.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Beryllium	3.1E-07	5.3E-08	1.1E-06	1.9E-07	0.47	1.70	100	1.0E-06	104	12	1.00	43.2	4380	25550
Cadmium	4.9E-07	8.3E-08	1.4E-05	2.5E-06	0.74	21.80	100	1.0E-06	104	12	1.00	43.2	4380	25550
Chromium	1.2E-05	2.1E-06	4.6E-05	7.8E-06	18.32	69.20	100	1.0E-06	104	12	1.00	43.2	4380	25550
Cobalt	6.2E-06	1.1E-06	1.3E-05	2.3E-06	9.38	20.20	100	1.0E-06	104	12	1.00	43.2	4380	25550
Copper	5.6E-05	9.6E-06	4.0E-03	6.9E-04	85.24	6070.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Lead	6.5E-05	1.1E-05	1.3E-03	2.2E-04	98.80	1980.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Manganese	2.5E-04	4.3E-05	4.5E-04	7.7E-05	382.52	678.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Mercury	3.3E-06	5.6E-09	5.3E-07	9.0E-08	0.10	1.60	100	1.0E-06	104	12	0.50	43.2	4380	25550
Nickel	1.4E-05	2.4E-06	6.9E-05	1.2E-05	21.54	105.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Selenium	2.4E-07	4.0E-08	1.3E-06	2.3E-07	0.36	2.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Zinc	1.6E-04	2.8E-05	1.3E-02	2.2E-03	245.18	19200.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
VOLATILES														
1,1-Dichloroethene	2.5E-09	4.2E-10	5.9E-09	1.0E-09	0.0037	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
1,1,1-Trichloroethane	2.7E-09	4.6E-10	5.9E-09	1.0E-09	0.0041	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
1,1,2-Trichloroethane	2.6E-09	4.4E-10	5.9E-09	1.0E-09	0.0039	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
1,1,2,2-Tetrachloroethane	3.1E-09	5.2E-10	7.9E-09	1.4E-09	0.0046	0.0120	100	1.0E-06	104	12	1.00	43.2	4380	25550
1,2-Dichloroethane	2.5E-09	4.2E-10	5.9E-09	1.0E-09	0.0037	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
1,2-Dichloroethene	2.5E-09	4.2E-10	5.9E-09	1.0E-09	0.0037	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
1,2-Dichloropropane	2.6E-09	4.5E-10	5.9E-09	1.0E-09	0.0040	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
2-Hexanone	6.0E-09	1.0E-09	1.6E-08	2.8E-09	0.0091	0.0250	100	1.0E-06	104	12	1.00	43.2	4380	25550
Benzene	2.6E-09	4.4E-10	5.9E-09	1.0E-09	0.0039	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
Bromodichloromethane	2.6E-09	4.4E-10	5.9E-09	1.0E-09	0.0039	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
Bromoform	2.6E-09	4.4E-10	5.9E-09	1.0E-09	0.0039	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
Carbon Tetrachloride	2.6E-09	4.4E-10	5.9E-09	1.0E-09	0.0039	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
Chlorobenzene	2.9E-09	4.9E-10	7.9E-09	1.4E-09	0.0043	0.0120	100	1.0E-06	104	12	1.00	43.2	4380	25550
Chloromethane	5.0E-09	8.6E-10	1.1E-08	1.9E-09	0.0076	0.0170	100	1.0E-06	104	12	1.00	43.2	4380	25550
Chloroform	2.5E-09	4.2E-10	5.9E-09	1.0E-09	0.0037	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
Dibromochloromethane	2.6E-09	4.4E-10	5.9E-09	1.0E-09	0.0039	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
Ethylbenzene	2.9E-09	4.9E-10	7.9E-09	1.4E-09	0.0043	0.0120	100	1.0E-06	104	12	1.00	43.2	4380	25550
Styrene	3.1E-09	5.2E-10	7.9E-09	1.4E-09	0.0046	0.0120	100	1.0E-06	104	12	1.00	43.2	4380	25550
Tetrachloroethene	2.7E-09	4.6E-10	7.9E-09	1.4E-09	0.0041	0.0120	100	1.0E-06	104	12	1.00	43.2	4380	25550
Toluene	2.6E-09	4.5E-10	7.9E-09	1.4E-09	0.0040	0.0120	100	1.0E-06	104	12	1.00	43.2	4380	25550
Trichloroethene	2.6E-09	4.4E-10	5.9E-09	1.0E-09	0.0039	0.0090	100	1.0E-06	104	12	1.00	43.2	4380	25550
Vinyl chloride	5.0E-09	8.6E-10	1.1E-08	1.9E-09	0.0076	0.0170	100	1.0E-06	104	12	1.00	43.2	4380	25550
Xylenes	3.1E-09	5.2E-10	7.9E-09	1.4E-09	0.0046	0.0120	100	1.0E-06	104	12	1.00	43.2	4380	25550

TABLE A.2-2 (cont.)
SCENARIO 2
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	2.9E-07	5.0E-08	2.9E-07	5.0E-08	0.44	0.44	100	1.0E-06	104	12	1.00	43.2	4380	25550
2-Methylnaphthalene	1.8E-07	3.0E-08	7.3E-07	1.2E-07	0.27	1.10	100	1.0E-06	104	12	1.00	43.2	4380	25550
2,4-Dichlorophenol	2.9E-07	5.0E-08	2.9E-07	5.0E-08	0.44	0.44	100	1.0E-06	104	12	1.00	43.2	4380	25550
2,4,5-Trichlorophenol	1.5E-06	2.5E-07	1.5E-06	2.5E-07	2.20	2.20	100	1.0E-06	104	12	1.00	43.2	4380	25550
3,3-Dichlorobenzidine	5.1E-07	8.7E-08	1.1E-05	1.8E-06	0.77	16.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Acenaphthene	2.1E-07	3.6E-08	2.5E-06	4.3E-07	0.32	3.80	100	1.0E-06	104	12	1.00	43.2	4380	25550
Acenaphthylene	2.2E-07	3.8E-08	2.9E-07	5.0E-08	0.34	0.44	100	1.0E-06	104	12	1.00	43.2	4380	25550
Anthracene	2.5E-07	4.4E-08	4.5E-06	7.7E-07	0.38	6.80	100	1.0E-06	104	12	1.00	43.2	4380	25550
Benzo(a)anthracene	4.6E-07	7.9E-08	1.3E-05	2.1E-06	0.70	19.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Benzo(a)pyrene	5.5E-07	9.5E-08	1.1E-05	1.8E-06	0.84	16.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Benzo(b)fluoranthene	6.2E-07	1.1E-07	9.9E-06	1.7E-06	0.94	15.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Benzo(ghi)perylene	4.8E-07	8.3E-08	5.5E-06	9.5E-07	0.74	8.40	100	1.0E-06	104	12	1.00	43.2	4380	25550
Benzo(k)fluoranthene	5.5E-07	9.5E-08	9.2E-06	1.6E-06	0.84	14.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Bis(2ethylhexyl)phthalate	2.4E-07	4.2E-08	5.2E-06	8.9E-07	0.37	7.90	100	1.0E-06	104	12	1.00	43.2	4380	25550
Butylbenzylphthalate	1.9E-07	3.2E-08	5.2E-06	8.9E-07	0.28	7.90	100	1.0E-06	104	12	1.00	43.2	4380	25550
Chrysene	5.4E-07	9.3E-08	1.2E-05	2.0E-06	0.82	18.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Dibenzofuran	1.8E-07	3.1E-08	1.8E-06	3.2E-07	0.27	2.80	100	1.0E-06	104	12	1.00	43.2	4380	25550
Dibenzo(ah)anthracene	2.8E-07	4.8E-08	5.2E-06	8.9E-07	0.43	7.90	100	1.0E-06	104	12	1.00	43.2	4380	25550
Diethylphthalate	2.1E-07	3.7E-08	2.9E-07	5.0E-08	0.32	0.44	100	1.0E-06	104	12	1.00	43.2	4380	25550
Dimethylphthalate	2.9E-07	5.0E-08	2.9E-07	5.0E-08	0.44	0.44	100	1.0E-06	104	12	1.00	43.2	4380	25550
Di-n-butylphthalate	4.4E-06	7.6E-07	4.4E-06	7.6E-07	6.70	6.70	100	1.0E-06	104	12	1.00	43.2	4380	25550
Di-n-octylphthalate	2.8E-07	4.8E-06	5.2E-06	8.9E-07	0.42	7.90	100	1.0E-06	104	12	1.00	43.2	4380	25550
Fluoranthene	9.2E-07	1.6E-07	3.0E-05	5.2E-06	1.39	46.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Fluorene	2.2E-07	3.7E-08	3.1E-06	5.3E-07	0.33	4.70	100	1.0E-06	104	12	1.00	43.2	4380	25550
Indeno(123cd)pyrene	4.7E-07	8.1E-08	5.9E-06	1.0E-06	0.72	8.90	100	1.0E-06	104	12	1.00	43.2	4380	25550
Naphthalene	2.1E-07	3.5E-08	2.0E-06	3.4E-07	0.31	3.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Phenanthrene	5.6E-07	9.6E-08	1.7E-05	2.9E-06	0.85	26.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
Phenol	2.9E-07	5.0E-08	2.9E-07	5.0E-08	0.44	0.44	100	1.0E-06	104	12	1.00	43.2	4380	25550
Pyrene	8.3E-07	1.4E-07	1.8E-05	3.1E-06	1.28	27.00	100	1.0E-06	104	12	1.00	43.2	4380	25550
PESTICIDES														
4,4'-DDD	5.0E-09	8.7E-10	3.8E-08	6.4E-09	0.028	0.190	100	1.0E-06	104	12	0.30	43.2	4380	25550
4,4'-DDE	4.2E-09	7.3E-10	4.7E-09	8.1E-10	0.021	0.024	100	1.0E-06	104	12	0.30	43.2	4380	25550
4,4'-DDT	8.1E-09	1.4E-09	3.6E-07	6.1E-08	0.041	1.800	100	1.0E-06	104	12	0.30	43.2	4380	25550
Aldrin	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Alpha-BHC	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Alpha-chlordane	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.095	0.095	100	1.0E-06	104	12	0.30	43.2	4380	25550
Beta-BHC	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Dieldrin	3.8E-09	6.4E-10	3.8E-09	6.4E-10	0.019	0.019	100	1.0E-06	104	12	0.30	43.2	4380	25550
Delta-BHC	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Endosulfan I	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Endosulfan II	3.8E-09	6.4E-10	3.8E-09	6.4E-10	0.019	0.019	100	1.0E-06	104	12	0.30	43.2	4380	25550
Endosulfan Sulfate	3.8E-09	6.4E-10	3.8E-09	6.4E-10	0.019	0.019	100	1.0E-06	104	12	0.30	43.2	4380	25550
Endrin	3.8E-09	6.4E-10	3.8E-09	6.4E-10	0.019	0.019	100	1.0E-06	104	12	0.30	43.2	4380	25550
Endrin ketone	3.8E-09	6.4E-10	3.8E-09	6.4E-10	0.019	0.019	100	1.0E-06	104	12	0.30	43.2	4380	25550
Gamma-BHC	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Gamma-chlordane	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.095	0.095	100	1.0E-06	104	12	0.30	43.2	4380	25550
Heptachlor	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Heptachlor epoxide	1.9E-09	3.2E-10	1.9E-09	3.2E-10	0.010	0.010	100	1.0E-06	104	12	0.30	43.2	4380	25550
Methoxychlor	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.095	0.095	100	1.0E-06	104	12	0.30	43.2	4380	25550
Toxaphene	3.8E-08	6.4E-09	3.8E-08	6.4E-09	0.190	0.190	100	1.0E-06	104	12	0.30	43.2	4380	25550
PCB's														
Aroclor-1016	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.10	0.10	100	1.0E-06	104	12	0.30	43.2	4380	25550
Aroclor-1221	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.10	0.10	100	1.0E-06	104	12	0.30	43.2	4380	25550
Aroclor-1232	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.10	0.10	100	1.0E-06	104	12	0.30	43.2	4380	25550
Aroclor-1242	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.10	0.10	100	1.0E-06	104	12	0.30	43.2	4380	25550
Aroclor-1248	1.9E-08	3.2E-09	1.9E-08	3.2E-09	0.10	0.10	100	1.0E-06	104	12	0.30	43.2	4380	25550
Aroclor-1254	4.4E-08	7.5E-09	1.2E-07	2.1E-08	0.22	0.61	100	1.0E-06	104	12	0.30	43.2	4380	25550
Aroclor-1260	3.8E-08	6.4E-09	3.8E-08	6.4E-09	0.19	0.19	100	1.0E-06	104	12	0.30	43.2	4380	25550

TABLE A.2-3
SCENARIO 2
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)$^{-1}$	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	TOTAL RISK	
										5.5E-07	1.3E-04	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										2.4E-07	8.7E-06	MEAN
VOLATILES												
1,1-Dichloroethene	1.1E-09	2.5E-09	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	6.3E-10	1.5E-09			
1,1,1-Trichloroethane	1.2E-09	2.5E-09	No	NA	D		IRIS	0.0E+00	0.0E+00			
1,1,2-Trichloroethane	1.1E-09	2.5E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	6.3E-11	1.5E-10			
1,1,2,2-Tetrachloroethane	1.3E-09	3.4E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2.6E-10	6.8E-10			
1,2-Dichloroethane	1.1E-09	2.5E-09	No	0.09	B2	Hemangiosarcoma	Gavage/IRIS	9.6E-11	2.3E-10			
1,2-Dichloroethene	1.1E-09	2.5E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
1,2-Dichloropropane	1.1E-09	2.5E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	7.7E-11	1.7E-10			
2-Hexanone	2.6E-09	7.1E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzene	1.1E-09	2.5E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	3.2E-11	7.4E-11			
Bromodichloromethane	1.1E-09	2.5E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	1.4E-10	3.3E-10			
Bromoform	1.1E-09	2.5E-09	No	7.90E-03	B2	lg. Intestin Neoplastic lesion	Gavage/IRIS	8.7E-12	2.0E-11			
Carbon Tetrachloride	1.1E-09	2.5E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	1.4E-10	3.3E-10			
Chlorobenzene	1.2E-09	3.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloromethane	2.2E-09	4.8E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	2.8E-11	6.2E-11			
Chloroform	1.1E-09	2.5E-09	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	6.4E-12	1.6E-11			
Dibromochloromethane	1.1E-09	2.5E-09	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	9.3E-11	2.1E-10			
Ethylbenzene	1.2E-09	3.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Styrene	1.3E-09	3.4E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	3.9E-11	1.0E-10			
Tetrachloroethene	1.2E-09	3.4E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	5.9E-11	1.7E-10			
Toluene	1.1E-09	3.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Trichloroethene	1.1E-09	2.5E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	1.2E-11	2.8E-11			
Vinyl chloride	2.2E-09	4.8E-09	No	1.90E+00	A	Lung	Diet/HEAST	4.1E-09	9.1E-09			
Xylenes	1.3E-09	3.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			

TABLE A.2-3 (cont.)
SCENARIO 2
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL									
SEMIVOLATILES									
1,4-Dichlorobenzene	1.2E-08	1.2E-08	No	2.40E-02	C	Liver	Gavage/HEAST	3.0E-10	3.0E-10
2-Methylnaphthalene	7.5E-09	3.1E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	1.2E-08	1.2E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	6.2E-08	6.2E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	2.2E-08	4.5E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	9.8E-09	2.0E-07
Acenaphthene	9.1E-09	1.1E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	9.6E-09	1.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	1.1E-08	1.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	2.0E-08	5.4E-07	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00
Benzo(a)pyrene	2.4E-08	4.5E-07	No	NA	B2	Lung, Stomach	IRIS	0.0E+00	0.0E+00
Benzo(b)fluoranthene	2.7E-08	4.2E-07	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00
Benzo(ghi)perylene	2.1E-08	2.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	2.4E-08	4.0E-07	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	1.0E-08	2.2E-07	No	1.40E-02	B2	Liver	IRIS	1.5E-10	3.1E-09
Butylbenzylphthalate	7.9E-09	2.2E-07	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00
Chrysene	2.3E-08	5.1E-07	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00
Dibenzofuran	7.7E-09	7.9E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzo(ah)anthracene	1.2E-08	2.2E-07	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00
Diethylphthalate	9.2E-09	1.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	1.2E-08	1.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	1.9E-07	1.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	1.2E-08	2.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	3.9E-08	1.3E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	9.3E-09	1.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	2.0E-08	2.5E-07	No	NA	B2	Lung, Skin	IRIS	0.0E+00	0.0E+00
Naphthalene	8.8E-09	8.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	2.4E-08	7.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	1.2E-08	1.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	3.6E-08	7.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	7.2E-10	5.4E-09	No	2.4E-01	B2	Liver tumor	Oral/IRIS	1.7E-10	1.3E-09
4,4'-DDE	6.0E-10	6.8E-10	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.1E-10	2.3E-10
4,4'-DDT	1.2E-09	5.1E-08	No	3.4E-01	B2	Liver tumor	Diet/IRIS	3.9E-10	1.7E-08
Aldrin	2.7E-10	2.7E-10	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	4.6E-09	4.6E-09
Alpha-BHC	2.7E-10	2.7E-10	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.7E-09	1.7E-09
Alpha-chlordane	2.7E-09	2.7E-09	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.5E-09	3.5E-09
Beta-BHC	2.7E-10	2.7E-10	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	4.8E-10	4.8E-10
Deildrin	5.4E-10	5.4E-10	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	8.6E-09	8.6E-09
Delta-BHC	2.7E-10	2.7E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	2.7E-10	2.7E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	5.4E-10	5.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan Sulfate	5.4E-10	5.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin	5.4E-10	5.4E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	5.4E-10	5.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Gamma-BHC	2.7E-10	2.7E-10	No	1.3E+00	B2-C	Liver	Diet/HEAST	3.5E-10	3.5E-10
Gamma-chlordane	2.7E-09	2.7E-09	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.5E-09	3.5E-09
Heptachlor	2.7E-10	2.7E-10	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.2E-09	1.2E-09
Heptachlor epoxide	2.7E-10	2.7E-10	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.4E-09	2.4E-09
Methoxychlor	2.7E-09	2.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	5.4E-09	5.4E-09	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	5.9E-09	5.9E-09
PCB's									
Aroclor-1016	2.7E-09	2.7E-09	No	7.7E+00				2.1E-08	2.1E-08
Aroclor-1221	2.7E-09	2.7E-09	No	7.7E+00				2.1E-08	2.1E-08
Aroclor-1232	2.7E-09	2.7E-09	No	7.7E+00				2.1E-08	2.1E-08
Aroclor-1242	2.7E-09	2.7E-09	No	7.7E+00				2.1E-08	2.1E-08
Aroclor-1248	2.7E-09	2.7E-09	No	7.7E+00				2.1E-08	2.1E-08
Aroclor-1254	6.2E-09	1.7E-08	No	7.7E+00				4.8E-08	1.3E-07
Aroclor-1260	5.4E-09	5.4E-09	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	4.1E-08	4.1E-08

TABLE A.2-4
SCENARIO 2
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

CHEMICAL	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	
										1.3E-04	MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										6.4E-06	MEAN
INORGANICS											
Antimony	7.7E-07	1.0E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	5.9E-07	2.3E-06	No	1.75E+00	A	Skin	Water/IRIS	1.0E-06	4.0E-06		
Beryllium	5.3E-08	1.9E-07	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	2.3E-07	8.3E-07		
Cadmium	8.3E-08	2.5E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	2.1E-06	7.8E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	1.1E-06	2.3E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	9.6E-06	6.9E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	1.1E-05	2.2E-04	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00		
Manganese	4.3E-05	7.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	5.6E-09	9.0E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	2.4E-06	1.2E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Selenium	4.0E-08	2.3E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	2.8E-05	2.2E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	4.2E-10	1.0E-09	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	2.5E-10	6.1E-10		
1,1,1-Trichloroethane	4.6E-10	1.0E-09	No	NA	D		IRIS	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	4.4E-10	1.0E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	2.5E-11	5.8E-11		
1,1,2,2-Tetrachloroethane	5.2E-10	1.4E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.0E-10	2.7E-10		
1,2-Dichloroethane	4.2E-10	1.0E-09	No	0.09	B2	Hemangiosarcoma	Gavage/IRIS	3.8E-11	9.3E-11		
1,2-Dichloroethene	4.2E-10	1.0E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,2-Dichloropropane	4.5E-10	1.0E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	3.1E-11	6.9E-11		
2-Hexanone	1.0E-09	2.8E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	4.4E-10	1.0E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.3E-11	3.0E-11		
Bromodichloromethane	4.4E-10	1.0E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	5.7E-11	1.3E-10		
Bromoform	4.4E-10	1.0E-09	No	7.90E-03	B2	lg. Intestin Neoplastic lesion	Gavage/IRIS	3.5E-12	8.0E-12		
Carbon Tetrachloride	4.4E-10	1.0E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	5.7E-11	1.3E-10		
Chlorobenzene	4.9E-10	1.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloromethane	6.6E-10	1.9E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.1E-11	2.5E-11		
Chloroform	4.2E-10	1.0E-09	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	2.6E-12	6.2E-12		
Dibromochloromethane	4.4E-10	1.0E-09	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	3.7E-11	8.5E-11		
Ethylbenzene	4.9E-10	1.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	5.2E-10	1.4E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.6E-11	4.1E-11		
Tetrachloroethene	4.6E-10	1.4E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	2.4E-11	6.9E-11		
Toluene	4.5E-10	1.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	4.4E-10	1.0E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	4.8E-12	1.1E-11		
Vinyl chloride	8.6E-10	1.9E-09	No	1.90E+00	A	Lung	Diet/HEAST	1.6E-09	3.7E-09		
Xylenes	5.2E-10	1.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE A.2-4 (cont.)
SCENARIO 2
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

CHEMICAL	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL									
SEMIVOLATILES									
1,4-Dichlorobenzene	5.0E-08	5.0E-08	No	2.40E-02	C	Liver	Gavage/HEAST	1.2E-09	1.2E-09
2-Methylnaphthalene	3.0E-08	1.2E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	5.0E-08	5.0E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	2.5E-07	2.5E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	8.7E-08	1.8E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	3.9E-08	8.1E-07
Acenaphthene	3.6E-08	4.3E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	3.8E-08	5.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	4.4E-08	7.7E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	7.9E-08	2.1E-08	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	9.0E-07	2.5E-05
Benzo(a)pyrene	9.5E-08	1.8E-08	No	1.15E+01	B2	Lung, Stomach	IRIS	1.1E-08	2.1E-05
Benzo(b)fluoranthene	1.1E-07	1.7E-08	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.2E-08	2.0E-05
Benzo(ghi)perylene	8.3E-08	9.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	9.5E-08	1.6E-08	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.1E-08	1.8E-05
Bis(2ethylhexyl)phthalate	4.2E-08	8.9E-07	No	1.40E-02	B2	Liver	IRIS	5.8E-10	1.3E-08
Butylbenzylphthalate	3.2E-08	8.9E-07	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00
Chrysene	9.3E-08	2.0E-08	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.1E-08	2.3E-05
Dibenzofuran	3.1E-08	3.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzo(ah)anthracene	4.8E-08	8.9E-07	No	1.15E+01	B2	Lung, Mammary	IRIS	5.6E-07	1.0E-05
Diethylphthalate	3.7E-08	5.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	5.0E-08	5.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	7.6E-07	7.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	4.8E-08	8.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	1.8E-07	5.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	3.7E-08	5.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	8.1E-08	1.0E-08	No	1.15E+01	B2	Lung, Skin	IRIS	9.3E-07	1.2E-05
Naphthalene	3.5E-08	3.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	9.8E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	5.0E-08	5.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	1.4E-07	3.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	8.7E-10	6.4E-09	No	2.4E-01	B2	Liver tumor	Oral/IRIS	2.1E-10	1.5E-09
4,4'-DDE	7.3E-10	8.1E-10	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.5E-10	2.8E-10
4,4'-DDT	1.4E-09	6.1E-08	No	3.4E-01	B2	Liver tumor	Diet/IRIS	4.7E-10	2.1E-08
Aldrin	3.2E-10	3.2E-10	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	5.5E-09	5.5E-09
Alpha-BHC	3.2E-10	3.2E-10	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.0E-09	2.0E-09
Alpha-chlordane	3.2E-09	3.2E-09	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	4.2E-09	4.2E-09
Beta-BHC	3.2E-10	3.2E-10	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	5.8E-10	5.8E-10
Delldrin	6.4E-10	6.4E-10	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	1.0E-08	1.0E-08
Delta-BHC	3.2E-10	3.2E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	3.2E-10	3.2E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	6.4E-10	6.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan Sulfate	6.4E-10	6.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin	6.4E-10	6.4E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	6.4E-10	6.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Gamma-BHC	3.2E-10	3.2E-10	No	1.3E+00	B2-C	Liver	Diet/HEAST	4.2E-10	4.2E-10
Gamma-chlordane	3.2E-09	3.2E-09	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	4.2E-09	4.2E-09
Heptachlor	3.2E-10	3.2E-10	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.5E-09	1.5E-09
Heptachlor epoxide	3.2E-10	3.2E-10	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.9E-09	2.9E-09
Methoxychlor	3.2E-09	3.2E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	6.4E-09	6.4E-09	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	7.1E-09	7.1E-09
PCB's									
Aroclor-1016	3.2E-09	3.2E-09	No	7.7E+00				2.5E-08	2.5E-08
Aroclor-1221	3.2E-09	3.2E-09	No	7.7E+00				2.5E-08	2.5E-08
Aroclor-1232	3.2E-09	3.2E-09	No	7.7E+00				2.5E-08	2.5E-08
Aroclor-1242	3.2E-09	3.2E-09	No	7.7E+00				2.5E-08	2.5E-08
Aroclor-1248	3.2E-09	3.2E-09	No	7.7E+00				2.5E-08	2.5E-08
Aroclor-1254	7.5E-09	2.1E-08	No	7.7E+00				5.7E-08	1.6E-07
Aroclor-1260	6.4E-09	6.4E-09	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	5.0E-08	5.0E-08

TABLE A.2-5
SCENARIO 2
CHRONIC HAZARD INDEX RATIOS
MCALUSTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX	TOTAL HAZARD INDEX	
												7.8E-03	3.7E-01	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												1.3E-03	2.5E-02	MEAN
VOLATILES														
1,1-Dichloroethene	6.2E-09	1.5E-06	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	6.8E-07	1.6E-06			
1,1,1-Trichloroethane	6.8E-09	1.5E-06	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	7.5E-08	1.6E-07			
1,1,2-Trichloroethane	6.4E-09	1.5E-06	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.6E-06	3.7E-06			
1,1,2,2-Tetrachloroethane	7.8E-09	2.0E-06	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethane	6.2E-09	1.5E-06	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethene	6.2E-09	1.5E-06	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		6.2E-07	1.5E-06			
1,2-Dichloropropane	6.8E-09	1.5E-06	No	NA			NA/HEAST			NA	NA			
2-Hexanone	1.5E-08	4.1E-06	No	NA			NA/IRIS,HEAST			NA	NA			
Benzene	6.4E-09	1.5E-06	No	NA			NA/IRIS,HEAST			NA	NA			
Bromodichloromethane	6.4E-09	1.5E-06	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	3.2E-07	7.4E-07			
Bromoform	6.4E-09	1.5E-06	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	3.2E-07	7.4E-07			
Carbon Tetrachloride	6.4E-09	1.5E-06	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	9.2E-06	2.1E-05			
Chlorobenzene	7.1E-09	2.0E-06	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		3.6E-07	9.9E-07			
Chloromethane	1.3E-08	2.6E-06	No	NA			NA/IRIS,HEAST			NA	NA			
Chloroform	6.2E-09	1.5E-06	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	6.2E-07	1.5E-06			
Dibromochloromethane	6.4E-09	1.5E-06	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	3.2E-07	7.4E-07			
Ethylbenzene	7.1E-09	2.0E-06	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	7.1E-08	2.0E-07			
Styrene	7.6E-09	2.0E-06	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	3.8E-08	9.9E-08			
Tetrachloroethene	6.8E-09	2.0E-06	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	6.8E-07	2.0E-06			
Toluene	6.5E-09	2.0E-06	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	3.3E-08	9.9E-08			
Trichloroethene	6.4E-09	1.5E-06	No	NA			NA/IRIS,HEAST			NA	NA			
Vinyl chloride	1.3E-08	2.6E-06	No	NA			NA/IRIS,HEAST			NA	NA			
Xylenes	7.6E-09	2.0E-06	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	3.8E-09	9.9E-09			

TABLE A.2-5 (cont.)
SCENARIO 2
CHRONIC HAZARD INDEX RATIOS
MCALUSTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL											
SEMIVOLATILES											
1,4-Dichlorobenzene	7.3E-06	7.3E-06	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	4.4E-06	1.6E-07	No	4E-03			NA/IRIS,HEAST			1.1E-05	4.5E-05
2,4-Dichlorophenol	7.3E-06	7.3E-06	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	2.4E-05	2.4E-05
2,4,5-Trichlorophenol	3.6E-07	3.6E-07	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	3.6E-06	3.6E-06
3,3-Dichlorobenzidine	1.3E-07	2.6E-06	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	5.3E-06	6.3E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	8.8E-07	1.0E-05
Acenaphthylene	5.6E-06	7.3E-06	No	4E-03			NA/IRIS,HEAST			1.4E-05	1.8E-05
Anthracene	6.3E-06	1.1E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	2.1E-07	3.7E-06
Benzo(a)anthracene	1.1E-07	3.1E-06	No	4E-03			NA/IRIS,HEAST			2.9E-05	7.8E-04
Benzo(a)pyrene	1.4E-07	2.6E-06	No	4E-03			NA/IRIS,HEAST			3.4E-05	6.6E-04
Benzo(b)fluoranthene	1.6E-07	2.5E-06	No	4E-03			NA/IRIS,HEAST			3.9E-05	6.2E-04
Benzo(ghi)perylene	1.2E-07	1.4E-06	No	4E-03			NA/IRIS,HEAST			3.0E-05	3.5E-04
Benzo(k)fluoranthene	1.4E-07	2.3E-06	No	4E-03			NA/IRIS,HEAST			3.5E-05	5.8E-04
Bis(2ethylhexyl)phthalate	6.1E-06	1.3E-06	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	3.0E-06	6.5E-05
Butylbenzylphthalate	4.6E-06	1.3E-06	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	2.3E-07	6.5E-06
Chrysene	1.4E-07	3.0E-06	No	4E-03			NA/HEAST			3.4E-05	7.4E-04
Dibenzofuran	4.5E-06	4.6E-07	No	4E-03			NA/HEAST	1000		1.1E-05	1.2E-04
Dibenzo(ah)anthracene	7.1E-06	1.3E-06	No	4E-03			NA/IRIS,HEAST			1.8E-05	3.3E-04
Diethylphthalate	5.4E-06	7.3E-06	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	6.7E-06	9.1E-06
Dimethylphthalate	7.3E-06	7.3E-06	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		7.3E-06	7.3E-06
Di-n-butylphthalate	1.1E-06	1.1E-06	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	1.1E-05	1.1E-05
Di-n-octylphthalate	6.9E-06	1.3E-06	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		3.5E-06	6.5E-05
Fluoranthene	2.3E-07	7.6E-06	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	5.7E-06	1.9E-04
Fluorene	5.4E-06	7.7E-07	No	4E-02	Low	Nephropathy,liver and blood effects	Gavage/IRIS	3000	1	1.4E-06	1.9E-05
Indeno(123cd)pyrene	1.2E-07	1.5E-06	No	4E-03			NA/IRIS,HEAST			3.0E-05	3.7E-04
Naphthalene	5.1E-06	4.9E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.3E-05	1.2E-04
Phenanthrene	1.4E-07	4.3E-06	No	4E-03			NA/HEAST			3.5E-05	1.1E-03
Phenol	7.3E-06	7.3E-06	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	1.2E-07	1.2E-07
Pyrene	2.1E-07	4.5E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	6.9E-06	1.5E-04
PESTICIDES											
4,4'-DDD	4.2E-09	3.1E-08	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	3.5E-09	4.0E-09	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	6.8E-09	3.0E-07	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.4E-05	5.9E-04
Aldrin	1.6E-09	1.6E-09	No	3.0E-05	Medium	Liver toxicty	Diet/IRIS	1000	1	5.2E-05	5.2E-05
Alpha-BHC	1.6E-09	1.6E-09	No	NA			NA/IRIS,HEAST			NA	NA
Alpha-chlordane	1.6E-08	1.6E-08	No	6.0E-05		Regional liver hypertrophy in females	Diet/IRIS	1000		2.6E-04	2.6E-04
Beta-BHC	1.6E-09	1.6E-09	No	NA			NA/IRIS,HEAST			NA	NA
Dieldrin	3.1E-09	3.1E-09	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	6.3E-05	6.3E-05
Delta-BHC	1.6E-09	1.6E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endosulfan I	1.6E-09	1.6E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	3.1E-05	3.1E-05
Endosulfan II	3.1E-09	3.1E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	6.3E-05	6.3E-05
Endosulfan Sulfate	3.1E-09	3.1E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endrin	3.1E-09	3.1E-09	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	1.0E-05	1.0E-05
Endrin ketone	3.1E-09	3.1E-09	No	NA			NA/IRIS,HEAST			NA	NA
Gamma-BHC	1.6E-09	1.6E-09	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	5.2E-06	5.2E-06
Gamma-chlordane	1.6E-08	1.6E-08	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	2.6E-04	2.6E-04
Heptachlor	1.6E-09	1.6E-09	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	3.1E-06	3.1E-06
Heptachlor epoxide	1.6E-09	1.6E-09	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	1.2E-04	1.2E-04
Methoxychlor	1.6E-08	1.6E-08	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	3.1E-06	3.1E-06
Toxaphene	3.1E-08	3.1E-08	No	NA			NA/IRIS,HEAST			NA	NA
PCB's											
Aroclor-1016	1.6E-08	1.6E-08	No	NA			NA/IRIS,HEAST			NA	NA
Aroclor-1221	1.6E-08	1.6E-08	No	NA			NA/IRIS,HEAST			NA	NA
Aroclor-1232	1.6E-08	1.6E-08	No	NA			NA/IRIS,HEAST			NA	NA
Aroclor-1242	1.6E-08	1.6E-08	No	NA			NA/IRIS,HEAST			NA	NA
Aroclor-1248	1.6E-08	1.6E-08	No	NA			NA/IRIS,HEAST			NA	NA
Aroclor-1254	3.6E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA
Aroclor-1260	3.1E-08	3.1E-08	No	NA			NA/IRIS,HEAST			NA	NA

TABLE A.2-6
SCENARIO 2
CHRONIC HAZARD INDEX RATIOS
MCALUSTER POINT LANDFILL

CHEMICAL	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MEAN	PATHWAY HAZARD INDEX (HI)	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												3.8E-01	MAXIMUM
												2.5E-02	MEAN
INORGANICS													
Antimony	4.5E-06	8.0E-05	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	1.1E-02	1.5E-01		
Arsenic	3.4E-06	1.3E-05	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		3.4E-03	1.3E-02		
Beryllium	3.1E-07	1.1E-06	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	6.2E-05	2.2E-04		
Cadmium	4.9E-07	1.4E-05	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	4.9E-04	1.4E-02		
Chromium	1.2E-05	4.6E-05	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	2.4E-03	9.1E-03		
Cobalt	6.2E-06	1.3E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Copper	5.6E-05	4.0E-03	No	4E-02		Local GI irritation	HEAST			1.4E-03	1.0E-01		
Lead	6.5E-05	1.3E-03	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA		
Manganese	2.5E-04	4.5E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	2.5E-03	4.5E-03		
Mercury	3.3E-08	5.3E-07	No	3E-04		Kidney effects	Oral/HEAST	1000		1.1E-04	1.8E-03		
Nickel	1.4E-05	6.9E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Selenium	2.4E-07	1.3E-06	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	4.7E-05	2.6E-04		
Zinc	1.6E-04	1.3E-02	No	2E-01		Anemia	Therapeutic/HEAST	10		8.1E-04	6.3E-02		
VOLATILES													
1,1-Dichloroethene	2.5E-09	5.9E-09	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	2.7E-07	6.6E-07		
1,1,1-Trichloroethane	2.7E-09	5.9E-09	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	3.0E-08	6.6E-08		
1,1,2-Trichloroethane	2.6E-09	5.9E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	6.4E-07	1.5E-06		
1,1,2,2-Tetrachloroethane	3.1E-09	7.9E-09	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethane	2.5E-09	5.9E-09	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethene	2.5E-09	5.9E-09	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		2.5E-07	5.9E-07		
1,2-Dichloropropane	2.6E-09	5.9E-09	No	NA			NA/HEAST			NA	NA		
2-Hexanone	6.0E-09	1.6E-08	No	NA			NA/IRIS,HEAST			NA	NA		
Benzene	2.6E-09	5.9E-09	No	NA			NA/IRIS,HEAST			NA	NA		
Bromodichloromethane	2.6E-09	5.9E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	1.3E-07	3.0E-07		
Bromoform	2.6E-09	5.9E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	1.3E-07	3.0E-07		
Carbon Tetrachloride	2.6E-09	5.9E-09	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	3.7E-06	8.5E-06		
Chlorobenzene	2.9E-09	7.9E-09	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		1.4E-07	4.0E-07		
Chloromethane	5.0E-09	1.1E-08	No	NA			NA/IRIS,HEAST			NA	NA		
Chloroform	2.5E-09	5.9E-09	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	2.5E-07	5.9E-07		
Dibromochloromethane	2.6E-09	5.9E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	1.3E-07	3.0E-07		
Ethylbenzene	2.9E-09	7.9E-09	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	2.9E-08	7.9E-08		
Styrene	3.1E-09	7.9E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	1.5E-08	4.0E-08		
Tetrachloroethene	2.7E-09	7.9E-09	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	2.7E-07	7.9E-07		
Toluene	2.6E-09	7.9E-09	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	1.3E-08	4.0E-08		
Trichloroethene	2.6E-09	5.9E-09	No	NA			NA/IRIS,HEAST			NA	NA		
Vinyl chloride	5.0E-09	1.1E-08	No	NA			NA/IRIS,HEAST			NA	NA		
Xylenes	3.1E-09	7.9E-09	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	1.5E-09	4.0E-09		

TABLE A.2-6 (cont.)
SCENARIO 2
CHRONIC HAZARD INDEX RATIOS
MCALUSTER POINT LANDFILL

CHEMICAL	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											
SEMIVOLATILES											
1,4-Dichlorobenzene	2.9E-07	2.9E-07	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	1.6E-07	7.3E-07	No	4E-03			NA/IRIS,HEAST			4.4E-05	1.8E-04
2,4-Dichlorophenol	2.9E-07	2.9E-07	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	9.7E-05	9.7E-05
2,4,5-Trichlorophenol	1.5E-06	1.5E-06	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	1.5E-05	1.5E-05
3,3-Dichlorobenzidine	5.1E-07	1.1E-05	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	2.1E-07	2.5E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	3.5E-06	4.2E-05
Acenaphthylene	2.2E-07	2.9E-07	No	4E-03			NA/IRIS,HEAST			5.6E-05	7.3E-05
Anthracene	2.5E-07	4.5E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	8.5E-07	1.5E-05
Benzo(a)anthracene	4.6E-07	1.3E-05	No	4E-03			NA/IRIS,HEAST			1.1E-04	3.1E-03
Benzo(a)pyrene	5.5E-07	1.1E-05	No	4E-03			NA/IRIS,HEAST			1.4E-04	2.6E-03
Benzo(b)fluoranthene	6.2E-07	9.9E-06	No	4E-03			NA/IRIS,HEAST			1.6E-04	2.5E-03
Benzo(ghi)perylene	4.6E-07	5.5E-06	No	4E-03			NA/IRIS,HEAST			1.2E-04	1.4E-03
Benzo(k)fluoranthene	5.5E-07	9.2E-06	No	4E-03			NA/IRIS,HEAST			1.4E-04	2.3E-03
Bis(2ethylhexyl)phthalate	2.4E-07	5.2E-06	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.2E-05	2.6E-04
Butylbenzylphthalate	1.9E-07	5.2E-06	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	9.3E-07	2.6E-05
Chrysene	5.4E-07	1.2E-05	No	4E-03			NA/HEAST			1.4E-04	3.0E-03
Dibenzofuran	1.8E-07	1.8E-06	No	4E-03			NA/HEAST	1000		4.5E-05	4.6E-04
Dibenzo(ah)anthracene	2.8E-07	5.2E-06	No	4E-03			NA/IRIS,HEAST			7.1E-05	1.3E-03
Diethylphthalate	2.1E-07	2.9E-07	No	8E-01	Low	*Decreased growth and food consumption rate*	Diet/IRIS	1000	1	2.7E-07	3.6E-07
Dimethylphthalate	2.9E-07	2.9E-07	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		2.9E-07	2.9E-07
Di-n-butylphthalate	4.4E-06	4.4E-06	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	4.4E-05	4.4E-05
Di-n-octylphthalate	2.8E-07	5.2E-06	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		1.4E-05	2.6E-04
Fluoranthene	9.2E-07	3.0E-05	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	2.3E-05	7.6E-04
Fluorene	2.2E-07	3.1E-06	No	4E-02	Low	Nephropathy,liver and blood effects	Gavage/IRIS	3000	1	5.4E-06	7.7E-05
Indeno(123cd)pyrene	4.7E-07	5.9E-06	No	4E-03			NA/IRIS,HEAST			1.2E-04	1.5E-03
Naphthalene	2.1E-07	2.0E-06	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		5.1E-05	4.9E-04
Phenanthrene	5.6E-07	1.7E-05	No	4E-03			NA/HEAST			1.4E-04	4.3E-03
Phenol	2.9E-07	2.9E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	4.8E-07	4.8E-07
Pyrene	6.3E-07	1.6E-05	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	2.8E-05	5.9E-04
PESTICIDES											
4,4'-DDD	5.0E-09	3.8E-06	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	4.2E-09	4.7E-09	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	6.1E-09	3.6E-07	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.6E-05	7.1E-04
Aldrin	1.9E-09	1.9E-09	No	3.0E-05	Medium	Liver toxicity	Diet/IRIS	1000	1	6.3E-05	6.3E-05
Alpha-BHC	1.9E-09	1.9E-09	No	NA			NA/IRIS,HEAST			NA	NA
Alpha-chlordane	1.9E-08	1.9E-08	No	6.0E-05		Regional liver hypertrophy in females	Diet/IRIS	1000		3.1E-04	3.1E-04
Beta-BHC	1.9E-09	1.9E-09	No	NA			NA/IRIS,HEAST			NA	NA
Dieldrin	3.8E-09	3.8E-09	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	7.5E-05	7.5E-05
Delta-BHC	1.9E-09	1.9E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endosulfan I	1.9E-09	1.9E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	3.8E-05	3.8E-05
Endosulfan II	3.8E-09	3.8E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	7.5E-05	7.5E-05
Endosulfan Sulfate	3.8E-09	3.8E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endrin	3.8E-09	3.8E-09	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	1.3E-05	1.3E-05
Endrin ketone	3.8E-09	3.8E-09	No	NA			NA/IRIS,HEAST			NA	NA
Gamma-BHC	1.9E-09	1.9E-09	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	6.3E-06	6.3E-06
Gamma-chlordane	1.9E-08	1.9E-08	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	3.1E-04	3.1E-04
Heptachlor	1.9E-09	1.9E-09	No	5.0E-04	Low	Liver weight increases in *males*	Diet/IRIS	300	1	3.8E-06	3.8E-06
Heptachlor epoxide	1.9E-09	1.9E-09	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	1.4E-04	1.4E-04
Methoxychlor	1.9E-08	1.9E-08	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	3.8E-06	3.8E-06
Toxaphene	3.8E-08	3.8E-08	No	NA			NA/IRIS,HEAST			NA	NA
PCB's											
Arocior-1016	1.9E-08	1.9E-08	No	NA			NA/IRIS,HEAST			NA	NA
Arocior-1221	1.9E-08	1.9E-08	No	NA			NA/IRIS,HEAST			NA	NA
Arocior-1232	1.9E-08	1.9E-08	No	NA			NA/IRIS,HEAST			NA	NA
Arocior-1242	1.9E-08	1.9E-08	No	NA			NA/IRIS,HEAST			NA	NA
Arocior-1248	1.9E-08	1.9E-08	No	NA			NA/IRIS,HEAST			NA	NA
Arocior-1254	4.4E-08	1.2E-07	No	NA			NA/IRIS,HEAST			NA	NA
Arocior-1260	3.8E-08	3.8E-08	No	NA			NA/IRIS,HEAST			NA	NA

TABLE A.3-1
SCENARIO 3
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS DOSE NONCANCER MEAN (mg/kg/day)	ABS DOSE CANCER MEAN (mg/kg/day)	ABS DOSE NONCANCER MAX (mg/kg/day)	ABS DOSE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.9	167.0	1.0E-06	500	0.00	250	1	70.0	365	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.4	22.9	1.0E-06	500	0.00	250	1	70.0	365	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.3	2.0	1.0E-06	500	0.00	250	1	70.0	365	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.4	8.6	1.0E-06	500	0.00	250	1	70.0	365	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	15.3	78.1	1.0E-06	500	0.00	250	1	70.0	365	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10.3	28.0	1.0E-06	500	0.00	250	1	70.0	365	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	34.8	1760.0	1.0E-06	500	0.00	250	1	70.0	365	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	33.0	886.0	1.0E-06	500	0.00	250	1	70.0	365	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	338.9	1300.0	1.0E-06	500	0.00	250	1	70.0	365	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.1	2.9	1.0E-06	500	0.00	250	1	70.0	365	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.4	68.3	1.0E-06	500	0.00	250	1	70.0	365	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.4	4.2	1.0E-06	500	0.00	250	1	70.0	365	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	114.3	2090.0	1.0E-06	500	0.00	250	1	70.0	365	25550
VOLATILES														
1,1-Dichloroethene	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0047	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,1-Trichloroethane	1.3E-08	1.9E-10	2.4E-08	3.5E-10	0.0053	0.0100	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2-Trichloroethane	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0050	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2,2-Tetrachloroethane	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0050	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloroethane	1.2E-08	1.6E-10	8.3E-07	1.2E-08	0.0047	0.3400	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloroethene	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0050	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloropropane	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0050	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
2-Hexanone	2.5E-08	3.6E-10	5.6E-08	8.0E-10	0.0103	0.0230	1.0E-06	500	0.50	250	1	70.0	365	25550
Benzene	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0049	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromodichloromethane	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0050	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromoform	1.3E-08	1.9E-10	2.9E-08	4.2E-10	0.0054	0.0120	1.0E-06	500	0.50	250	1	70.0	365	25550
Carbon Tetrachloride	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0050	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
Chlorobenzene	1.2E-08	1.7E-10	7.8E-08	1.1E-09	0.0049	0.0320	1.0E-06	500	0.50	250	1	70.0	365	25550
Chloromethane	2.3E-08	3.3E-10	3.2E-08	4.5E-10	0.0095	0.0130	1.0E-06	500	0.50	250	1	70.0	365	25550
Chloroform	1.1E-08	1.6E-10	1.5E-08	2.1E-10	0.0046	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
Dibromochloromethane	1.3E-08	1.8E-10	2.9E-08	4.2E-10	0.0051	0.0120	1.0E-06	500	0.50	250	1	70.0	365	25550
Ethylbenzene	1.5E-08	2.1E-10	9.3E-07	1.3E-08	0.0061	0.3800	1.0E-06	500	0.50	250	1	70.0	365	25550
Styrene	1.2E-08	1.7E-10	1.5E-08	2.1E-10	0.0050	0.0060	1.0E-06	500	0.50	250	1	70.0	365	25550
Tetrachloroethene	1.2E-08	1.7E-10	9.3E-07	1.3E-08	0.0048	0.3800	1.0E-06	500	0.50	250	1	70.0	365	25550
Toluene	1.2E-08	1.7E-10	1.7E-06	2.4E-08	0.0050	0.6800	1.0E-06	500	0.50	250	1	70.0	365	25550
Trichloroethene	1.1E-08	1.6E-10	2.0E-08	2.8E-10	0.0045	0.0080	1.0E-06	500	0.50	250	1	70.0	365	25550
Vinyl chloride	2.3E-08	3.3E-10	3.2E-08	4.5E-10	0.0095	0.0130	1.0E-06	500	0.50	250	1	70.0	365	25550
Xylenes	2.0E-08	2.9E-10	1.8E-06	2.6E-08	0.0082	0.7300	1.0E-06	500	0.50	250	1	70.0	365	25550

TABLE A.3-1 (cont.)
SCENARIO 3
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS DOSE NONCANCER MEAN (mg/kg/day)	ABS DOSE CANCER MEAN (mg/kg/day)	ABS DOSE NONCANCER MAX (mg/kg/day)	ABS DOSE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	1.0E-07	1.4E-09	5.4E-07	7.7E-09	0.41	2.20	1.0E-06	500	0.05	250	1	70.0	365	25550
2-Methylnaphthalene	9.6E-08	1.4E-09	1.1E-06	1.6E-08	0.39	4.50	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4-Dichlorophenol	9.5E-08	1.4E-09	6.6E-07	9.4E-09	0.39	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4,5-Trichlorophenol	4.9E-07	7.0E-09	3.4E-06	4.9E-08	2.00	14.00	1.0E-06	500	0.05	250	1	70.0	365	25550
3,3-Dichlorobenzidine	2.1E-07	3.1E-09	1.3E-06	1.9E-08	0.87	5.40	1.0E-06	500	0.05	250	1	70.0	365	25550
Acenaphthene	9.1E-08	1.3E-09	1.4E-06	2.0E-08	0.37	5.80	1.0E-06	500	0.05	250	1	70.0	365	25550
Acenaphthylene	9.4E-08	1.3E-09	6.6E-07	9.4E-09	0.38	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Anthracene	8.8E-08	1.3E-09	6.6E-07	9.4E-09	0.36	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)anthracene	1.1E-07	1.6E-09	9.1E-07	1.3E-08	0.45	3.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)pyrene	1.1E-07	1.5E-09	7.8E-07	1.1E-08	0.43	3.20	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(b)fluoranthene	1.0E-07	1.4E-09	6.6E-07	9.4E-09	0.41	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(ghi)perylene	1.1E-07	1.6E-09	6.6E-07	9.4E-09	0.46	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(k)fluoranthene	1.0E-07	1.5E-09	7.1E-07	1.0E-08	0.43	2.90	1.0E-06	500	0.05	250	1	70.0	365	25550
Bis(2ethylhexyl)phthalate	1.2E-07	1.7E-09	2.9E-06	4.2E-08	0.49	12.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Butylbenzylphthalate	1.1E-07	1.6E-09	6.6E-07	9.4E-09	0.45	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Chrysene	1.1E-07	1.5E-09	8.8E-07	1.3E-08	0.43	3.60	1.0E-06	500	0.05	250	1	70.0	365	25550
Dibenzofuran	8.8E-08	1.3E-09	9.8E-07	1.4E-08	0.36	4.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Dibenzo(ah)anthracene	1.1E-07	1.6E-09	6.6E-07	9.4E-09	0.46	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Diethylphthalate	9.6E-08	1.4E-09	6.6E-07	9.4E-09	0.39	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Dimethylphthalate	1.1E-07	1.5E-09	6.6E-07	9.4E-09	0.44	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Di-n-butylphthalate	9.7E-08	1.4E-09	1.0E-06	1.4E-08	0.40	4.10	1.0E-06	500	0.05	250	1	70.0	365	25550
Di-n-octylphthalate	1.0E-07	1.5E-09	6.6E-07	9.4E-09	0.42	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluoranthene	1.7E-07	2.5E-09	1.4E-06	2.1E-08	0.72	5.80	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluorene	8.5E-08	1.2E-09	1.1E-06	1.5E-08	0.35	4.40	1.0E-06	500	0.05	250	1	70.0	365	25550
Indeno(123cd)pyrene	1.2E-07	1.7E-09	6.6E-07	9.4E-09	0.48	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Naphthalene	8.6E-08	1.2E-09	7.3E-07	1.0E-08	0.35	3.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenanthrene	1.7E-07	2.4E-09	1.5E-06	2.2E-08	0.69	6.20	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenol	1.0E-07	1.4E-09	6.6E-07	9.4E-09	0.41	2.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Pyrene	1.5E-07	2.2E-09	1.1E-06	1.5E-08	0.63	4.40	1.0E-06	500	0.05	250	1	70.0	365	25550
PESTICIDES														
4,4'-DDD	5.6E-09	8.0E-11	4.9E-08	7.0E-10	0.023	0.200	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDE	4.3E-09	6.2E-11	4.9E-08	7.0E-10	0.018	0.200	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDT	5.4E-09	7.7E-11	7.3E-08	1.0E-09	0.022	0.300	1.0E-06	500	0.05	250	1	70.0	365	25550
Aldrin	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Alpha-BHC	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Alpha-chlordane	3.0E-08	4.3E-10	2.4E-07	3.5E-09	0.123	1.000	1.0E-06	500	0.05	250	1	70.0	365	25550
Beta-BHC	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Dieldrin	6.0E-09	8.5E-11	4.9E-08	7.0E-10	0.024	0.200	1.0E-06	500	0.05	250	1	70.0	365	25550
Delta-BHC	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Endosulfan I	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Endosulfan II	6.0E-09	8.5E-11	4.9E-08	7.0E-10	0.024	0.200	1.0E-06	500	0.05	250	1	70.0	365	25550
Endosulfan Sulfate	6.0E-09	8.5E-11	4.9E-08	7.0E-10	0.024	0.200	1.0E-06	500	0.05	250	1	70.0	365	25550
Endrin	6.0E-09	8.5E-11	4.9E-08	7.0E-10	0.024	0.200	1.0E-06	500	0.05	250	1	70.0	365	25550
Endrin ketone	6.0E-09	8.5E-11	4.9E-08	7.0E-10	0.024	0.200	1.0E-06	500	0.05	250	1	70.0	365	25550
Gamma-BHC	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Gamma-chlordane	3.0E-08	4.3E-10	2.4E-07	3.5E-09	0.123	1.000	1.0E-06	500	0.05	250	1	70.0	365	25550
Heptachlor	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Heptachlor epoxide	3.0E-09	4.3E-11	2.4E-08	3.5E-10	0.012	0.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Methoxychlor	3.0E-08	4.3E-10	2.4E-07	3.5E-09	0.123	1.000	1.0E-06	500	0.05	250	1	70.0	365	25550
Toxaphene	6.0E-08	8.5E-10	4.9E-07	7.0E-09	0.244	2.000	1.0E-06	500	0.05	250	1	70.0	365	25550
PCB's														
Aroclor-1016	3.0E-08	4.3E-10	2.4E-07	3.5E-09	0.12	1.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Aroclor-1221	3.0E-08	4.3E-10	2.4E-07	3.5E-09	0.12	1.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Aroclor-1232	3.0E-08	4.3E-10	2.4E-07	3.5E-09	0.12	1.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Aroclor-1242	3.6E-08	5.1E-10	2.4E-07	3.5E-09	0.15	1.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Aroclor-1248	3.1E-08	4.5E-10	2.4E-07	3.5E-09	0.13	1.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Aroclor-1254	4.9E-08	7.0E-10	4.9E-07	7.0E-09	0.20	2.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Aroclor-1260	6.0E-08	8.5E-10	4.9E-07	7.0E-09	0.24	2.00	1.0E-06	500	0.05	250	1	70.0	365	25550

TABLE A.3-2
SCENARIO 3
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	2.3E-05	3.3E-07	7.8E-04	1.1E-05	4.91	167.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Arsenic	3.9E-05	5.6E-07	1.1E-04	1.5E-06	8.40	22.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Beryllium	1.5E-06	2.2E-08	9.4E-06	1.3E-07	0.32	2.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Cadmium	2.1E-06	3.0E-08	4.0E-05	5.6E-07	0.45	8.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Chromium	7.2E-05	1.0E-06	3.7E-04	5.2E-06	15.34	78.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Cobalt	4.8E-05	6.9E-07	1.3E-04	1.9E-06	10.25	28.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Copper	1.6E-04	2.3E-06	6.3E-03	1.2E-04	34.77	1760.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Lead	4.6E-05	6.6E-07	1.2E-03	1.8E-05	32.97	886.00	480	1.0E-06	250	1	0.30	70.0	365	25550
Manganese	1.6E-03	2.3E-05	6.1E-03	8.7E-05	339.88	1300.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Mercury	5.1E-07	7.3E-09	1.4E-05	1.9E-07	0.11	2.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Nickel	9.1E-05	1.3E-06	3.2E-04	4.6E-06	19.35	68.30	480	1.0E-06	250	1	1.00	70.0	365	25550
Selenium	1.7E-06	2.5E-08	2.0E-05	2.8E-07	0.37	4.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Zinc	5.4E-04	7.7E-06	9.8E-03	1.4E-04	114.29	2090.00	480	1.0E-06	250	1	1.00	70.0	365	25550
VOLATILES														
1,1-Dichloroethene	2.2E-08	3.2E-10	2.8E-08	4.0E-10	0.0047	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,1-Trichloroethane	2.5E-08	3.6E-10	4.7E-08	6.7E-10	0.0053	0.0100	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2-Trichloroethane	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0050	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2,2-Tetrachloroethane	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0050	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloroethane	2.2E-08	3.2E-10	1.6E-08	2.3E-08	0.0047	0.3400	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloroethene	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0050	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloropropane	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0050	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
2-Hexanone	4.8E-08	6.9E-10	1.1E-07	1.5E-09	0.0103	0.0230	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzene	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0049	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromodichloromethane	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0050	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromoform	2.5E-08	3.6E-10	5.6E-08	8.1E-10	0.0054	0.0120	480	1.0E-06	250	1	1.00	70.0	365	25550
Carbon Tetrachloride	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0050	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
Chlorobenzene	2.3E-08	3.3E-10	1.5E-07	2.1E-09	0.0049	0.0320	480	1.0E-06	250	1	1.00	70.0	365	25550
Chloromethane	4.4E-08	6.4E-10	6.1E-08	8.7E-10	0.0095	0.0130	480	1.0E-06	250	1	1.00	70.0	365	25550
Chloroform	2.2E-08	3.1E-10	2.8E-08	4.0E-10	0.0046	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibromochloromethane	2.4E-08	3.4E-10	5.6E-08	8.1E-10	0.0051	0.0120	480	1.0E-06	250	1	1.00	70.0	365	25550
Ethylbenzene	2.9E-08	4.1E-10	1.8E-06	2.5E-08	0.0061	0.3800	480	1.0E-06	250	1	1.00	70.0	365	25550
Styrene	2.3E-08	3.3E-10	2.8E-08	4.0E-10	0.0050	0.0060	480	1.0E-06	250	1	1.00	70.0	365	25550
Tetrachloroethene	2.3E-08	3.2E-10	1.8E-06	2.5E-08	0.0048	0.3800	480	1.0E-06	250	1	1.00	70.0	365	25550
Toluene	2.3E-08	3.3E-10	3.2E-06	4.6E-08	0.0050	0.6800	480	1.0E-06	250	1	1.00	70.0	365	25550
Trichloroethene	2.1E-08	3.0E-10	3.8E-08	5.4E-10	0.0045	0.0080	480	1.0E-06	250	1	1.00	70.0	365	25550
Vinyl chloride	4.4E-08	6.4E-10	6.1E-08	8.7E-10	0.0095	0.0130	480	1.0E-06	250	1	1.00	70.0	365	25550
Xylenes	3.9E-08	5.5E-10	3.4E-06	4.9E-08	0.0082	0.7300	480	1.0E-06	250	1	1.00	70.0	365	25550

TABLE A.3-2 (cont.)
SCENARIO 3
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichloroberzene	1.9E-06	2.8E-08	1.0E-05	1.5E-07	0.41	2.20	480	1.0E-06	250	1	1.00	70.0	365	25550
2-Methylnaphthalene	1.8E-06	2.6E-08	2.1E-05	3.0E-07	0.39	4.50	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4-Dichlorophenol	1.8E-06	2.6E-08	1.3E-05	1.8E-07	0.39	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4,5-Trichlorophenol	9.4E-06	1.3E-07	6.6E-05	9.4E-07	2.00	14.00	480	1.0E-06	250	1	1.00	70.0	365	25550
3,3-Dichlorobenzidine	4.1E-06	5.9E-08	2.5E-05	3.6E-07	0.87	5.40	480	1.0E-06	250	1	1.00	70.0	365	25550
Acenaphthene	1.7E-06	2.5E-08	2.7E-05	3.9E-07	0.37	5.80	480	1.0E-06	250	1	1.00	70.0	365	25550
Acenaphthylene	1.8E-06	2.6E-08	1.3E-05	1.8E-07	0.38	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Anthracene	1.7E-06	2.4E-08	1.3E-05	1.8E-07	0.38	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)anthracene	2.1E-06	3.0E-08	1.7E-05	2.5E-07	0.45	3.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)pyrene	2.0E-06	2.9E-08	1.5E-05	2.1E-07	0.43	3.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(b)fluoranthene	1.9E-06	2.8E-08	1.3E-05	1.8E-07	0.41	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(ghi)perylene	2.1E-06	3.1E-08	1.3E-05	1.8E-07	0.46	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(k)fluoranthene	2.0E-06	2.9E-08	1.4E-05	1.9E-07	0.43	2.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Bis(2ethylhexyl)phthalate	2.3E-06	3.3E-08	5.6E-05	8.1E-07	0.49	12.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Butylbenzylphthalate	2.1E-06	3.0E-08	1.3E-05	1.8E-07	0.45	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Chrysene	2.0E-06	2.9E-08	1.7E-05	2.4E-07	0.43	3.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibenzofuran	1.7E-06	2.4E-08	1.9E-05	2.7E-07	0.36	4.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibenzo(ah)anthracene	2.2E-06	3.1E-08	1.3E-05	1.8E-07	0.46	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Diethylphthalate	1.8E-06	2.6E-08	1.3E-05	1.8E-07	0.39	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Dimethylphthalate	2.1E-06	2.9E-08	1.3E-05	1.8E-07	0.44	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Di-n-butylphthalate	1.9E-06	2.7E-08	1.9E-05	2.8E-07	0.40	4.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Di-n-octylphthalate	2.0E-06	2.8E-08	1.3E-05	1.8E-07	0.42	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluoranthene	3.4E-06	4.8E-08	2.8E-05	4.0E-07	0.72	5.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluorene	1.6E-06	2.3E-08	2.1E-05	3.0E-07	0.35	4.40	480	1.0E-06	250	1	1.00	70.0	365	25550
Indeno(123cd)pyrene	2.2E-06	3.2E-08	1.3E-05	1.8E-07	0.48	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Naphthalene	1.6E-06	2.4E-08	1.4E-05	2.0E-07	0.35	3.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Phenanthrene	3.2E-06	4.6E-08	2.9E-05	4.2E-07	0.69	6.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Phenol	1.9E-06	2.7E-08	1.3E-05	1.8E-07	0.41	2.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Pyrene	3.0E-06	4.2E-08	2.1E-05	3.0E-07	0.63	4.40	480	1.0E-06	250	1	1.00	70.0	365	25550
PESTICIDES														
4,4'-DDD	3.2E-06	4.6E-10	2.8E-07	4.0E-09	0.023	0.200	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDE	2.5E-06	3.6E-10	2.8E-07	4.0E-09	0.018	0.200	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDT	3.1E-06	4.4E-10	4.2E-07	6.0E-09	0.022	0.300	480	1.0E-06	250	1	0.30	70.0	365	25550
Aldrin	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Alpha-BHC	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Alpha-chlordane	1.7E-07	2.5E-09	1.4E-06	2.0E-08	0.123	1.000	480	1.0E-06	250	1	0.30	70.0	365	25550
Beta-BHC	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Dieldrin	3.4E-06	4.8E-10	2.8E-07	4.0E-09	0.024	0.200	480	1.0E-06	250	1	0.30	70.0	365	25550
Delta-BHC	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Endosulfan I	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Endosulfan II	3.4E-06	4.8E-10	2.8E-07	4.0E-09	0.024	0.200	480	1.0E-06	250	1	0.30	70.0	365	25550
Endosulfan Sulfate	3.4E-06	4.8E-10	2.8E-07	4.0E-09	0.024	0.200	480	1.0E-06	250	1	0.30	70.0	365	25550
Endrin	3.4E-06	4.8E-10	2.8E-07	4.0E-09	0.024	0.200	480	1.0E-06	250	1	0.30	70.0	365	25550
Endrin ketone	3.4E-06	4.8E-10	2.8E-07	4.0E-09	0.024	0.200	480	1.0E-06	250	1	0.30	70.0	365	25550
Gamma-BHC	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Gamma-chlordane	1.7E-07	2.5E-09	1.4E-06	2.0E-08	0.123	1.000	480	1.0E-06	250	1	0.30	70.0	365	25550
Heptachlor	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Heptachlor epoxide	1.7E-06	2.5E-10	1.4E-07	2.0E-09	0.012	0.100	480	1.0E-06	250	1	0.30	70.0	365	25550
Methoxychlor	1.7E-07	2.5E-09	1.4E-06	2.0E-08	0.123	1.000	480	1.0E-06	250	1	0.30	70.0	365	25550
Toxaphene	3.4E-07	4.9E-09	2.8E-06	4.0E-08	0.244	2.000	480	1.0E-06	250	1	0.30	70.0	365	25550
PCB's														
Aroclor-1016	1.7E-07	2.5E-09	1.4E-06	2.0E-08	0.12	1.00	480	1.0E-06	250	1	0.30	70.0	365	25550
Aroclor-1221	1.7E-07	2.5E-09	1.4E-06	2.0E-08	0.12	1.00	480	1.0E-06	250	1	0.30	70.0	365	25550
Aroclor-1232	1.7E-07	2.5E-09	1.4E-06	2.0E-08	0.12	1.00	480	1.0E-06	250	1	0.30	70.0	365	25550
Aroclor-1242	2.1E-07	2.9E-09	1.4E-06	2.0E-08	0.15	1.00	480	1.0E-06	250	1	0.30	70.0	365	25550
Aroclor-1248	1.8E-07	2.6E-09	1.4E-06	2.0E-08	0.13	1.00	480	1.0E-06	250	1	0.30	70.0	365	25550
Aroclor-1254	2.8E-07	4.0E-09	2.8E-06	4.0E-08	0.20	2.00	480	1.0E-06	250	1	0.30	70.0	365	25550
Aroclor-1260	3.4E-07	4.9E-09	2.8E-06	4.0E-08	0.24	2.00	480	1.0E-06	250	1	0.30	70.0	365	25550

TABLE A.3-3
SCENARIO 3
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MCALLISTER POINT LANDFILL

COMPOUND NAME	NONCANCER INTAKE-MEAN (mg/kg/day)	CANCER INTAKE-MEAN (mg/kg/day)	NONCANCER INTAKE-MAX (mg/kg/day)	CANCER INTAKE-MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (m3/day)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCE (days)	AT CANCER (days)
INORGANICS														
Antimony	9.61E-10	1.37E-11	3.27E-08	4.67E-10	1.0E-09	4.91	167.00	20	250	1	1.0	70	365	25550
Arsenic	1.64E-09	2.35E-11	4.48E-09	6.40E-11	1.0E-09	8.40	22.90	20	250	1	1.0	70	365	25550
Beryllium	6.29E-11	8.98E-13	3.91E-10	5.59E-12	1.0E-09	0.32	2.00	20	250	1	1.0	70	365	25550
Cadmium	8.81E-11	1.26E-12	1.68E-09	2.40E-11	1.0E-09	0.45	8.60	20	250	1	1.0	70	365	25550
Chromium	3.00E-09	4.28E-11	1.53E-08	2.18E-10	1.0E-09	15.34	78.10	20	250	1	1.0	70	365	25550
Cobalt	2.01E-09	2.87E-11	5.48E-09	7.83E-11	1.0E-09	10.25	28.00	20	250	1	1.0	70	365	25550
Copper	6.80E-09	9.72E-11	3.44E-07	4.92E-09	1.0E-09	34.77	1760.00	20	250	1	1.0	70	365	25550
Lead	6.45E-09	9.22E-11	1.73E-07	2.48E-09	1.0E-09	32.97	886.00	20	250	1	1.0	70	365	25550
Manganese	6.65E-08	9.50E-10	2.54E-07	3.63E-09	1.0E-09	339.88	1300.00	20	250	1	1.0	70	365	25550
Mercury	2.13E-11	3.05E-13	5.68E-10	8.11E-12	1.0E-09	0.11	2.90	20	250	1	1.0	70	365	25550
Nickel	3.79E-09	5.41E-11	1.34E-08	1.91E-10	1.0E-09	19.35	68.30	20	250	1	1.0	70	365	25550
Selenium	7.17E-11	1.02E-12	8.22E-10	1.17E-11	1.0E-09	0.37	4.20	20	250	1	1.0	70	365	25550
Zinc	2.24E-08	3.20E-10	4.09E-07	5.84E-09	1.0E-09	114.29	2090.00	20	250	1	1.0	70	365	25550
VOLATILES														
1,1-Dichloroethene	9.29E-13	1.33E-14	1.17E-12	1.68E-14	1.0E-09	0.0047	0.0060	20	250	1	1.0	70	365	25550
1,1,1-Trichloroethane	1.04E-12	1.48E-14	1.96E-12	2.80E-14	1.0E-09	0.0053	0.0100	20	250	1	1.0	70	365	25550
1,1,2-Trichloroethane	9.76E-13	1.39E-14	1.17E-12	1.68E-14	1.0E-09	0.0050	0.0060	20	250	1	1.0	70	365	25550
1,1,2,2-Tetrachloroethane	9.76E-13	1.39E-14	1.17E-12	1.68E-14	1.0E-09	0.0050	0.0060	20	250	1	1.0	70	365	25550
1,2-Dichloroethane	9.21E-13	1.32E-14	6.85E-11	9.51E-13	1.0E-09	0.0047	0.3400	20	250	1	1.0	70	365	25550
1,2-Dichloroethene	9.76E-13	1.39E-14	1.17E-12	1.68E-14	1.0E-09	0.0050	0.0060	20	250	1	1.0	70	365	25550
1,2-Dichloropropane	9.76E-13	1.39E-14	1.17E-12	1.68E-14	1.0E-09	0.0050	0.0060	20	250	1	1.0	70	365	25550
2-Hexanone	2.01E-12	2.87E-14	4.50E-12	6.43E-14	1.0E-09	0.0103	0.0230	20	250	1	1.0	70	365	25550
Benzene	9.62E-13	1.37E-14	1.17E-12	1.68E-14	1.0E-09	0.0049	0.0060	20	250	1	1.0	70	365	25550
Bromodichloromethane	9.76E-13	1.39E-14	1.17E-12	1.68E-14	1.0E-09	0.0050	0.0060	20	250	1	1.0	70	365	25550
Bromoform	1.05E-12	1.50E-14	2.35E-12	3.35E-14	1.0E-09	0.0054	0.0120	20	250	1	1.0	70	365	25550
Carbon Tetrachloride	9.76E-13	1.39E-14	1.17E-12	1.68E-14	1.0E-09	0.0050	0.0060	20	250	1	1.0	70	365	25550
Chlorobenzene	9.58E-13	1.37E-14	6.26E-12	8.95E-14	1.0E-09	0.0049	0.0320	20	250	1	1.0	70	365	25550
Chloromethane	1.85E-12	2.65E-14	2.54E-12	3.63E-14	1.0E-09	0.0095	0.0130	20	250	1	1.0	70	365	25550
Chloroform	9.06E-13	1.29E-14	1.17E-12	1.68E-14	1.0E-09	0.0046	0.0060	20	250	1	1.0	70	365	25550
Dibromochloromethane	1.00E-12	1.43E-14	2.35E-12	3.35E-14	1.0E-09	0.0051	0.0120	20	250	1	1.0	70	365	25550
Ethylbenzene	1.20E-12	1.71E-14	7.44E-11	1.06E-12	1.0E-09	0.0061	0.3800	20	250	1	1.0	70	365	25550
Styrene	9.76E-13	1.39E-14	1.17E-12	1.68E-14	1.0E-09	0.0050	0.0060	20	250	1	1.0	70	365	25550
Tetrachloroethene	9.45E-13	1.35E-14	7.44E-11	1.06E-12	1.0E-09	0.0048	0.3800	20	250	1	1.0	70	365	25550
Toluene	9.76E-13	1.39E-14	1.33E-10	1.90E-12	1.0E-09	0.0050	0.6800	20	250	1	1.0	70	365	25550
Trichloroethene	8.71E-13	1.24E-14	1.57E-12	2.24E-14	1.0E-09	0.0045	0.0080	20	250	1	1.0	70	365	25550
Vinyl chloride	1.85E-12	2.65E-14	2.54E-12	3.63E-14	1.0E-09	0.0095	0.0130	20	250	1	1.0	70	365	25550
Xylenes	1.60E-12	2.29E-14	1.43E-10	2.04E-12	1.0E-09	0.0082	0.7300	20	250	1	1.0	70	365	25550

TABLE A.3-3 (cont.)
SCENARIO 3
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MCALLISTER POINT LANDFILL

COMPOUND NAME	NONCANCER INTAKE-MEAN (mg/kg/day)	CANCER INTAKE-MEAN (mg/kg/day)	NONCANCER INTAKE-MAX (mg/kg/day)	CANCER INTAKE-MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (m3/day)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCE (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	6.06E-11	1.15E-12	4.31E-10	8.15E-12	1.0E-09	0.41	2.20	20	250	1	1.0	70	365	25550
2-Methylnaphthalene	7.69E-11	1.10E-12	8.81E-10	1.26E-11	1.0E-09	0.39	4.50	20	250	1	1.0	70	365	25550
2,4-Dichlorophenol	7.59E-11	1.08E-12	5.28E-10	7.55E-12	1.0E-09	0.39	2.70	20	250	1	1.0	70	365	25550
2,4,5-Trichlorophenol	3.92E-10	5.60E-12	2.74E-09	3.91E-11	1.0E-09	2.00	14.00	20	250	1	1.0	70	365	25550
3,3-Dichlorobenzidine	1.71E-10	2.44E-12	1.06E-09	1.51E-11	1.0E-09	0.87	5.40	20	250	1	1.0	70	365	25550
Acenaphthene	7.26E-11	1.04E-12	1.14E-09	1.62E-11	1.0E-09	0.37	5.80	20	250	1	1.0	70	365	25550
Acenaphthylene	7.48E-11	1.07E-12	5.28E-10	7.55E-12	1.0E-09	0.38	2.70	20	250	1	1.0	70	365	25550
Anthracene	7.07E-11	1.01E-12	5.28E-10	7.55E-12	1.0E-09	0.36	2.70	20	250	1	1.0	70	365	25550
Benzo(a)anthracene	6.83E-11	1.26E-12	7.24E-10	1.03E-11	1.0E-09	0.45	3.70	20	250	1	1.0	70	365	25550
Benzo(a)pyrene	6.49E-11	1.21E-12	6.26E-10	6.95E-12	1.0E-09	0.43	3.20	20	250	1	1.0	70	365	25550
Benzo(b)fluoranthene	8.04E-11	1.15E-12	5.28E-10	7.55E-12	1.0E-09	0.41	2.70	20	250	1	1.0	70	365	25550
Benzo(ghi)perylene	8.94E-11	1.28E-12	5.28E-10	7.55E-12	1.0E-09	0.46	2.70	20	250	1	1.0	70	365	25550
Benzo(k)fluoranthene	8.39E-11	1.20E-12	5.68E-10	8.11E-12	1.0E-09	0.43	2.90	20	250	1	1.0	70	365	25550
Bis(2ethylhexyl)phthalate	9.65E-11	1.38E-12	2.35E-09	3.35E-11	1.0E-09	0.49	12.00	20	250	1	1.0	70	365	25550
Butylbenzylphthalate	8.79E-11	1.26E-12	5.28E-10	7.55E-12	1.0E-09	0.45	2.70	20	250	1	1.0	70	365	25550
Chrysene	8.50E-11	1.21E-12	7.05E-10	1.01E-11	1.0E-09	0.43	3.60	20	250	1	1.0	70	365	25550
Dibenzofuran	7.05E-11	1.01E-12	7.83E-10	1.12E-11	1.0E-09	0.36	4.00	20	250	1	1.0	70	365	25550
Dibenzo(ah)anthracene	9.01E-11	1.29E-12	5.28E-10	7.55E-12	1.0E-09	0.46	2.70	20	250	1	1.0	70	365	25550
Diethylphthalate	7.70E-11	1.10E-12	5.28E-10	7.55E-12	1.0E-09	0.39	2.70	20	250	1	1.0	70	365	25550
Dimethylphthalate	8.57E-11	1.22E-12	5.28E-10	7.55E-12	1.0E-09	0.44	2.70	20	250	1	1.0	70	365	25550
Di-n-butylphthalate	7.75E-11	1.11E-12	8.02E-10	1.15E-11	1.0E-09	0.40	4.10	20	250	1	1.0	70	365	25550
Di-n-octylphthalate	8.30E-11	1.19E-12	5.28E-10	7.55E-12	1.0E-09	0.42	2.70	20	250	1	1.0	70	365	25550
Fluoranthene	1.40E-10	2.00E-12	1.15E-09	1.65E-11	1.0E-09	0.72	5.90	20	250	1	1.0	70	365	25550
Fluorene	6.80E-11	9.71E-13	8.61E-10	1.23E-11	1.0E-09	0.35	4.40	20	250	1	1.0	70	365	25550
Indeno(123cd)pyrene	9.35E-11	1.34E-12	5.28E-10	7.55E-12	1.0E-09	0.48	2.70	20	250	1	1.0	70	365	25550
Naphthalene	6.87E-11	9.81E-13	5.87E-10	8.39E-12	1.0E-09	0.35	3.00	20	250	1	1.0	70	365	25550
Phenanthrene	1.35E-10	1.92E-12	1.21E-09	1.73E-11	1.0E-09	0.69	6.20	20	250	1	1.0	70	365	25550
Phenol	7.97E-11	1.14E-12	5.28E-10	7.55E-12	1.0E-09	0.41	2.70	20	250	1	1.0	70	365	25550
Pyrene	1.24E-10	1.76E-12	8.61E-10	1.23E-11	1.0E-09	0.63	4.40	20	250	1	1.0	70	365	25550
PESTICIDES														
4,4'-DDD	4.50E-12	6.43E-14	3.91E-11	5.59E-13	1.0E-09	0.023	0.200	20	250	1	1.0	70	365	25550
4,4'-DDE	3.46E-12	4.94E-14	3.91E-11	5.59E-13	1.0E-09	0.018	0.200	20	250	1	1.0	70	365	25550
4,4'-DDT	4.32E-12	6.17E-14	5.87E-11	8.39E-13	1.0E-09	0.022	0.300	20	250	1	1.0	70	365	25550
Aldrin	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Alpha-BHC	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Alpha-chlordane	2.40E-11	3.43E-13	1.96E-10	2.80E-12	1.0E-09	0.123	1.000	20	250	1	1.0	70	365	25550
Beta-BHC	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Deildrin	4.78E-12	6.83E-14	3.91E-11	5.59E-13	1.0E-09	0.024	0.200	20	250	1	1.0	70	365	25550
Delta-BHC	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Endosulfan I	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Endosulfan II	4.78E-12	6.83E-14	3.91E-11	5.59E-13	1.0E-09	0.024	0.200	20	250	1	1.0	70	365	25550
Endosulfan Sulfate	4.78E-12	6.83E-14	3.91E-11	5.59E-13	1.0E-09	0.024	0.200	20	250	1	1.0	70	365	25550
Endrin	4.78E-12	6.83E-14	3.91E-11	5.59E-13	1.0E-09	0.024	0.200	20	250	1	1.0	70	365	25550
Endrin ketone	4.78E-12	6.83E-14	3.91E-11	5.59E-13	1.0E-09	0.024	0.200	20	250	1	1.0	70	365	25550
Gamma-BHC	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Gamma-chlordane	2.40E-11	3.43E-13	1.96E-10	2.80E-12	1.0E-09	0.123	1.000	20	250	1	1.0	70	365	25550
Heptachlor	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Heptachlor epoxide	2.40E-12	3.43E-14	1.96E-11	2.80E-13	1.0E-09	0.012	0.100	20	250	1	1.0	70	365	25550
Methoxychlor	2.40E-11	3.43E-13	1.96E-10	2.80E-12	1.0E-09	0.123	1.000	20	250	1	1.0	70	365	25550
Toxaphene	4.78E-11	6.83E-13	3.91E-10	5.59E-12	1.0E-09	0.244	2.000	20	250	1	1.0	70	365	25550
PCB's														
Aroclor-1016	2.40E-11	3.43E-13	1.96E-10	2.80E-12	1.0E-09	0.12	1.00	20	250	1	1.0	70	365	25550
Aroclor-1221	2.40E-11	3.43E-13	1.96E-10	2.80E-12	1.0E-09	0.12	1.00	20	250	1	1.0	70	365	25550
Aroclor-1232	2.40E-11	3.43E-13	1.96E-10	2.80E-12	1.0E-09	0.12	1.00	20	250	1	1.0	70	365	25550
Aroclor-1242	2.87E-11	4.10E-13	1.96E-10	2.80E-12	1.0E-09	0.15	1.00	20	250	1	1.0	70	365	25550
Aroclor-1248	2.51E-11	3.58E-13	1.96E-10	2.80E-12	1.0E-09	0.13	1.00	20	250	1	1.0	70	365	25550
Aroclor-1254	3.91E-11	5.59E-13	3.91E-10	5.59E-12	1.0E-09	0.20	2.00	20	250	1	1.0	70	365	25550
Aroclor-1260	4.78E-11	6.83E-13	3.91E-10	5.59E-12	1.0E-09	0.24	2.00	20	250	1	1.0	70	365	25550

TABLE A.3-4
SCENARIO 3
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	TOTAL RISK	
										2.9E-07	2.2E-05	MAXIMUM
										3.6E-08	3.7E-06	MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												
VOLATILES												
1,1-Dichloroethene	1.7E-10	2.1E-10	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	1.0E-10	1.3E-10			
1,1,1-Trichloroethane	1.9E-10	3.5E-10	No	NA	D		IRIS	0.0E+00	0.0E+00			
1,1,2-Trichloroethane	1.7E-10	2.1E-10	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	9.9E-12	1.2E-11			
1,1,2,2-Tetrachloroethane	1.7E-10	2.1E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	3.5E-11	4.2E-11			
1,2-Dichloroethane	1.6E-10	1.2E-08	No	0.09	B2	Hemangiosarcoma	Gavage/IRIS	1.5E-11	1.1E-09			
1,2-Dichloroethene	1.7E-10	2.1E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
1,2-Dichloropropane	1.7E-10	2.1E-10	No	6.80E-02	B2	Liver	Gavage/HEAST	1.2E-11	1.4E-11			
2-Hexanone	3.6E-10	8.0E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzene	1.7E-10	2.1E-10	No	2.90E-02	A	Luekemia	Occupational/IRIS	5.0E-12	6.1E-12			
Bromodichloromethane	1.7E-10	2.1E-10	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	2.3E-11	2.7E-11			
Bromoform	1.9E-10	4.2E-10	No	7.90E-03	B2	lg. Intestin Neoplastic lesion	Gavage/IRIS	1.5E-12	3.3E-12			
Carbon Tetrachloride	1.7E-10	2.1E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	2.3E-11	2.7E-11			
Chlorobenzene	1.7E-10	1.1E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloromethane	3.3E-10	4.5E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	4.3E-12	5.9E-12			
Chloroform	1.6E-10	2.1E-10	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	9.9E-13	1.3E-12			
Dibromochloromethane	1.8E-10	4.2E-10	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	IRIS	1.5E-11	3.5E-11			
Ethylbenzene	2.1E-10	1.3E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Styrene	1.7E-10	2.1E-10	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	5.2E-12	6.3E-12			
Tetrachloroethene	1.7E-10	1.3E-08	No	5.10E-02	B2	Liver	Gavage/HEAST	8.6E-12	6.8E-10			
Toluene	1.7E-10	2.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Trichloroethene	1.6E-10	2.8E-10	No	1.10E-02	B2	Liver	Gavage/HEAST	1.7E-12	3.1E-12			
Vinyl chloride	3.3E-10	4.5E-10	No	1.90E+00	A	Lung	Diet/HEAST	6.3E-10	8.6E-10			
Xylenes	2.9E-10	2.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			

TABLE A.3-4 (cont.)
SCENARIO 3
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL									
SEMIVOLATILES									
1,4-Dichlorobenzene	1.4E-09	7.7E-09	No	2.40E-02	C	Liver	Gavage/HEAST	3.5E-11	1.8E-10
2-Methylnaphthalene	1.4E-09	1.6E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	1.4E-09	9.4E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	7.0E-09	4.9E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	3.1E-09	1.9E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.4E-09	8.5E-09
Acenaphthene	1.3E-09	2.0E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	1.3E-09	9.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	1.3E-09	9.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	1.6E-09	1.3E-08	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00
Benzo(a)pyrene	1.5E-09	1.1E-08	No	NA	B2	Stomach	IRIS	0.0E+00	0.0E+00
Benzo(b)fluoranthene	1.4E-09	9.4E-09	No	NA	B2		IRIS	0.0E+00	0.0E+00
Benzo(ghi)perylene	1.6E-09	9.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	1.5E-09	1.0E-08	No	NA	B2		IRIS	0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	1.7E-09	4.2E-08	No	1.40E-02	B2	Liver	IRIS	2.4E-11	5.9E-10
Butylbenzylphthalate	1.6E-09	9.4E-09	No	NA	C		NA/IRIS,HEAST	0.0E+00	0.0E+00
Chrysene	1.5E-09	1.3E-08	No	NA	B2		IRIS	0.0E+00	0.0E+00
Dibenzofuran	1.3E-09	1.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzo(ah)anthracene	1.6E-09	9.4E-09	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00
Diethylphthalate	1.4E-09	9.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	1.5E-09	9.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	1.4E-09	1.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	1.5E-09	9.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	2.5E-09	2.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	1.2E-09	1.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	1.7E-09	9.4E-09	No	NA	B2		IRIS	0.0E+00	0.0E+00
Naphthalene	1.2E-09	1.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	2.4E-09	2.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	1.4E-09	9.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	2.2E-09	1.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	6.0E-11	7.0E-10	No	2.4E-01	B2	Liver tumor	Oral/IRIS	1.9E-11	1.7E-10
4,4'-DDE	6.2E-11	7.0E-10	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.1E-11	2.4E-10
4,4'-DDT	7.7E-11	1.0E-09	No	3.4E-01	B2	Liver tumor	Diet/IRIS	2.6E-11	3.6E-10
Aldrin	4.3E-11	3.5E-10	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	7.3E-10	5.9E-09
Alpha-BHC	4.3E-11	3.5E-10	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.7E-10	2.2E-09
Alpha-chlordane	4.3E-10	3.5E-09	No	NA				0.0E+00	0.0E+00
Beta-BHC	4.3E-11	3.5E-10	No	1.8E+00	C	Heptic nodules	Diet/IRIS	7.7E-11	6.3E-10
Dieldrin	8.5E-11	7.0E-10	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	1.4E-09	1.1E-08
Delta-BHC	4.3E-11	3.5E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	4.3E-11	3.5E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	8.5E-11	7.0E-10	No	NA				0.0E+00	0.0E+00
Endosulfan Sulfate	8.5E-11	7.0E-10	No	NA				0.0E+00	0.0E+00
Endrin	8.5E-11	7.0E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	8.5E-11	7.0E-10	No	NA				0.0E+00	0.0E+00
Gamma-BHC	4.3E-11	3.5E-10	No	1.3E+00	B2-C	Liver	Diet/HEAST	5.6E-11	4.5E-10
Gamma-chlordane	4.3E-10	3.5E-09	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	5.6E-10	4.5E-09
Heptachlor	4.3E-11	3.5E-10	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.9E-10	1.6E-09
Heptachlor epoxide	4.3E-11	3.5E-10	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.9E-10	3.2E-09
Methoxychlor	4.3E-10	3.5E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	8.5E-10	7.0E-09	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	9.4E-10	7.7E-09
PCB's									
Aroclor-1016	4.3E-10	3.5E-09	No	7.7E+00				3.3E-09	2.7E-08
Aroclor-1221	4.3E-10	3.5E-09	No	7.7E+00				3.3E-09	2.7E-08
Aroclor-1232	4.3E-10	3.5E-09	No	7.7E+00				3.3E-09	2.7E-08
Aroclor-1242	5.1E-10	3.5E-09	No	7.7E+00				3.9E-09	2.7E-08
Aroclor-1248	4.5E-10	3.5E-09	No	7.7E+00				3.4E-09	2.7E-08
Aroclor-1254	7.0E-10	7.0E-09	No	7.7E+00				5.4E-09	5.4E-08
Aroclor-1260	8.5E-10	7.0E-09	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	6.6E-09	5.4E-08

TABLE A.3-5
SCENARIO 3
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	
										2.2E-05	MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										3.7E-06	MEAN
INORGANICS											
Antimony	3.3E-07	1.1E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	5.6E-07	1.5E-06	No	1.75E+00	A	Skin	Water/IRIS	9.9E-07	2.7E-06		
Beryllium	2.2E-06	1.3E-07	No	4.30E+00		Gross tumors, all sites combined	Water/IRIS	9.3E-08	5.8E-07		
Cadmium	3.0E-06	5.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	1.0E-06	5.2E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	6.9E-07	1.9E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	2.3E-06	1.2E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	6.6E-07	1.6E-05	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00		
Manganese	2.3E-05	6.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	7.3E-09	1.9E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	1.3E-06	4.6E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Selenium	2.5E-08	2.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	7.7E-06	1.4E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	3.2E-10	4.0E-10	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	1.9E-10	2.4E-10		
1,1,1-Trichloroethane	3.6E-10	6.7E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	3.3E-10	4.0E-10	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.9E-11	2.3E-11		
1,1,2,2-Tetrachloroethane	3.3E-10	4.0E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	6.7E-11	8.1E-11		
1,2-Dichloroethane	3.2E-10	2.3E-08	No	0.09	B2	Hemangiosarcoma	Gavage/IRIS	2.9E-11	2.1E-09		
1,2-Dichloroethene	3.3E-10	4.0E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,2-Dichloropropane	3.3E-10	4.0E-10	No	6.80E-02	B2	Liver	Gavage/HEAST	2.3E-11	2.7E-11		
2-Hexanone	6.9E-10	1.5E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	3.3E-10	4.0E-10	No	2.90E-02	A	Leukemia	Occupational/IRIS	9.6E-12	1.2E-11		
Bromodichloromethane	3.3E-10	4.0E-10	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	4.3E-11	5.2E-11		
Bromoform	3.6E-10	8.1E-10	No	7.90E-03	B2	Neoplastic lesion in large intestine	Gavage/IRIS	2.8E-12	6.4E-12		
Carbon Tetrachloride	3.3E-10	4.0E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	4.3E-11	5.2E-11		
Chlorobenzene	3.3E-10	2.1E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloromethane	6.4E-10	8.7E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	8.3E-12	1.1E-11		
Chloroform	3.1E-10	4.0E-10	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	1.9E-12	2.5E-12		
Dibromochloromethane	3.4E-10	8.1E-10	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	2.9E-11	6.8E-11		
Ethylbenzene	4.1E-10	2.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	3.3E-10	4.0E-10	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.0E-11	1.2E-11		
Tetrachloroethene	3.2E-10	2.5E-08	No	5.10E-02	B2	Liver	Gavage/HEAST	1.7E-11	1.3E-09		
Toluene	3.3E-10	4.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	3.0E-10	5.4E-10	No	1.10E-02	B2	Liver	Gavage/HEAST	3.3E-12	5.9E-12		
Vinyl chloride	6.4E-10	8.7E-10	No	1.90E+00	A	Lung	Diet/HEAST	1.2E-09	1.7E-09		
Xylenes	5.5E-10	4.9E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE A.3-5 (cont.)
SCENARIO 3
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL									
SEMIVOLATILES									
1,4-Dichlorobenzene	2.8E-08	1.5E-07	No	2.40E-02	C	Liver	Gavage/HEAST	6.6E-10	3.5E-09
2-Methylnaphthalene	2.6E-08	3.0E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	2.6E-08	1.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	1.3E-07	9.4E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	5.9E-08	3.6E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	2.6E-08	1.6E-07
Acenaphthene	2.5E-08	3.9E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	2.6E-08	1.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	2.4E-08	1.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	3.0E-08	2.5E-07	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	3.5E-07	2.9E-06
Benzo(a)pyrene	2.9E-08	2.1E-07	No	1.15E+01	B2	Stomach, Lung	IRIS	3.3E-07	2.5E-06
Benzo(b)fluoranthene	2.8E-08	1.8E-07	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	3.2E-07	2.1E-06
Benzo(ghi)perylene	3.1E-08	1.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	2.9E-08	1.9E-07	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	3.3E-07	2.2E-06
Bis(2ethylhexyl)phthalate	3.3E-08	8.1E-07	No	1.40E-02	B2	Liver	IRIS	4.6E-10	1.1E-08
Butylbenzylphthalate	3.0E-08	1.8E-07	No	NA	C	Leukemia	Diet/IRIS,HEAST	0.0E+00	0.0E+00
Chrysene	2.9E-08	2.4E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	3.4E-07	2.8E-06
Dibenzofuran	2.4E-08	2.7E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzo(ah)anthracene	3.1E-08	1.8E-07	No	1.15E+01	B2	Lung, Mammary	IRIS	3.6E-07	2.1E-06
Diethylphthalate	2.6E-08	1.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	2.9E-08	1.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	2.7E-08	2.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	2.8E-08	1.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	4.8E-08	4.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	2.3E-08	3.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	3.2E-08	1.8E-07	No	1.15E+01	B2	Lung, Skin	IRIS	3.7E-07	2.1E-06
Naphthalene	2.4E-08	2.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	4.6E-08	4.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	2.7E-08	1.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	4.2E-08	3.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	4.6E-10	4.0E-09	No	2.4E-01	B2	Liver tumor	Oral/IRIS	1.1E-10	9.7E-10
4,4'-DDE	3.6E-10	4.0E-09	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.2E-10	1.4E-09
4,4'-DDT	4.4E-10	6.0E-09	No	3.4E-01	B2	Liver tumor	Diet/IRIS	1.5E-10	2.1E-09
Aldrin	2.5E-10	2.0E-09	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	4.2E-09	3.4E-08
Alpha-BHC	2.5E-10	2.0E-09	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.6E-09	1.3E-08
Alpha-chlordane	2.5E-09	2.0E-08	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.2E-09	2.6E-08
Beta-BHC	2.5E-10	2.0E-09	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	4.4E-10	3.6E-09
Dieldrin	4.9E-10	4.0E-09	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	7.9E-09	6.4E-08
Delta-BHC	2.5E-10	2.0E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	2.5E-10	2.0E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	4.9E-10	4.0E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan Sulfate	4.9E-10	4.0E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin	4.9E-10	4.0E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	4.9E-10	4.0E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Gamma-BHC	2.5E-10	2.0E-09	No	1.3E+00	B2-C	Liver	Diet/HEAST	3.2E-10	2.6E-09
Gamma-chlordane	2.5E-09	2.0E-08	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.2E-09	2.6E-08
Heptachlor	2.5E-10	2.0E-09	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.1E-09	9.1E-09
Heptachlor epoxide	2.5E-10	2.0E-09	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.2E-09	1.8E-08
Methoxychlor	2.5E-09	2.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	4.9E-09	4.0E-08	No	1.1E+00	B2	Hepatocellular carcinoma,neoplastic nodules	Diet/IRIS	5.4E-09	4.4E-08
PCB's									
Aroclor-1016	2.5E-09	2.0E-08	No	7.7E+00				1.9E-08	1.5E-07
Aroclor-1221	2.5E-09	2.0E-08	No	7.7E+00				1.9E-08	1.5E-07
Aroclor-1232	2.5E-09	2.0E-08	No	7.7E+00				1.9E-08	1.5E-07
Aroclor-1242	2.9E-09	2.0E-08	No	7.7E+00				2.3E-08	1.5E-07
Aroclor-1248	2.6E-09	2.0E-08	No	7.7E+00				2.0E-08	1.5E-07
Aroclor-1254	4.0E-09	4.0E-08	No	7.7E+00				3.1E-08	3.1E-07
Aroclor-1260	4.9E-09	4.0E-08	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	3.8E-08	3.1E-07

TABLE A.3-6
SCENARIO 3
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	
										1.1E-09	MAXIMUM
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST										1.7E-10	MEAN
INORGANICS											
Antimony	1.4E-11	4.7E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	2.3E-11	6.4E-11	No	1.75E+00	A	Respiratory Tract	Occupational/IRIS	4.1E-11	1.1E-10		
Beryllium	9.0E-13	5.6E-12	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	3.9E-12	2.4E-11		
Cadmium	1.3E-12	2.4E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	4.3E-11	2.2E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	2.9E-11	7.8E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	9.7E-11	4.9E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	9.2E-11	2.5E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Manganese	9.5E-10	3.6E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	3.0E-13	6.1E-12	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	5.4E-11	1.9E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Selenium	1.0E-12	1.2E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	3.2E-10	5.8E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	1.3E-14	1.7E-14	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	8.0E-15	1.0E-14		
1,1,1-Trichloroethane	1.5E-14	2.8E-14	No	NA	D		IRIS	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	1.4E-14	1.7E-14	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	7.9E-16	9.6E-16		
1,1,2,2-Tetrachloroethane	1.4E-14	1.7E-14	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2.8E-15	3.4E-15		
1,2-Dichloroethane	1.3E-14	9.5E-13	No	0.09	B2	Hemangiosarcoma	Gavage/IRIS	1.2E-15	8.6E-14		
1,2-Dichloroethene	1.4E-14	1.7E-14	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,2-Dichloropropane	1.4E-14	1.7E-14	No	6.80E-02	B2	Liver	Gavage/HEAST	9.5E-16	1.1E-15		
2-Hexanone	2.9E-14	6.4E-14	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	1.4E-14	1.7E-14	No	2.90E-02	A	Luekemia	Occupational/IRIS	4.0E-16	4.9E-16		
Bromodichloromethane	1.4E-14	1.7E-14	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	1.8E-15	2.2E-15		
Bromoform	1.5E-14	3.4E-14	No	7.90E-03	B2	lg. Intestin Neoplastic lesion	Gavage/IRIS	1.2E-16	2.7E-16		
Carbon Tetrachloride	1.4E-14	1.7E-14	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	1.8E-15	2.2E-15		
Chlorobenzene	1.4E-14	8.9E-14	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloromethane	2.6E-14	3.6E-14	No	1.30E-02	C	Kidney	Inhalation/HEAST	3.4E-16	4.7E-16		
Chloroform	1.3E-14	1.7E-14	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	7.9E-17	1.0E-16		
Dibromochloromethane	1.4E-14	3.4E-14	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	IRIS	1.2E-15	2.8E-15		
Ethylbenzene	1.7E-14	1.1E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	1.4E-14	1.7E-14	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	4.2E-16	5.0E-16		
Tetrachloroethene	1.3E-14	1.1E-12	No	5.10E-02	B2	Liver	Gavage/HEAST	6.9E-16	5.4E-14		
Toluene	1.4E-14	1.9E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	1.2E-14	2.2E-14	No	1.10E-02	B2	Liver	Gavage/HEAST	1.4E-16	2.5E-16		
Vinyl chbride	2.6E-14	3.6E-14	No	1.90E+00	A	Lung	Diet/HEAST	5.0E-14	6.9E-14		
Xylenes	2.3E-14	2.0E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE A.3-6 (cont.)
SCENARIO 3
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST									
SEMIVOLATILES									
1,4-Dichlorobenzene	1.2E-12	6.2E-12	No	2.40E-02	C	Liver	Gavage/HEAST	2.8E-14	1.5E-13
2-Methylnaphthalene	1.1E-12	1.3E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	1.1E-12	7.5E-12	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	5.6E-12	3.9E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	2.4E-12	1.5E-11	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.1E-12	6.8E-12
Acenaphthene	1.0E-12	1.6E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	1.1E-12	7.5E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	1.0E-12	7.5E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	1.3E-12	1.0E-11	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	1.5E-11	1.2E-10
Benzo(a)pyrene	1.2E-12	8.9E-12	No	1.15E+01	B2	Stomach	IRIS	1.4E-11	1.0E-10
Benzo(b)fluoranthene	1.1E-12	7.5E-12	No	1.15E+01	B2		IRIS	1.3E-11	8.7E-11
Benzo(ghi)perylene	1.3E-12	7.5E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	1.2E-12	8.1E-12	No	1.15E+01	B2		IRIS	1.4E-11	9.3E-11
Bis(2ethylhexyl)phthalate	1.4E-12	3.4E-11	No	1.40E-02	B2	Liver	IRIS	1.9E-14	4.7E-13
Butylbenzylphthalate	1.3E-12	7.5E-12	No	NA	C		NA/IRIS,HEAST	0.0E+00	0.0E+00
Chrysene	1.2E-12	1.0E-11	No	1.15E+01	B2		IRIS	1.4E-11	1.2E-10
Dibenzofuran	1.0E-12	1.1E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzo(ah)anthracene	1.3E-12	7.5E-12	No	1.15E+01	B2	Lung, Mammary	IRIS	1.5E-11	8.7E-11
Diethylphthalate	1.1E-12	7.5E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	1.2E-12	7.5E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	1.1E-12	1.1E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	1.2E-12	7.5E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	2.0E-12	1.6E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	9.7E-13	1.2E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	1.3E-12	7.5E-12	No	1.15E+01	B2		IRIS	1.5E-11	8.7E-11
Naphthalene	9.6E-13	6.4E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	1.9E-12	1.7E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	1.1E-12	7.5E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	1.8E-12	1.2E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	6.4E-14	5.6E-13	No	2.4E-01	B2	Liver tumor	Oral/IRIS	1.5E-14	1.3E-13
4,4'-DDE	4.9E-14	5.6E-13	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.7E-14	1.9E-13
4,4'-DDT	6.2E-14	8.4E-13	No	3.4E-01	B2	Liver tumor	Diet/IRIS	2.1E-14	2.9E-13
Aldrin	3.4E-14	2.8E-13	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	5.8E-13	4.8E-12
Alpha-BHC	3.4E-14	2.8E-13	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.2E-13	1.8E-12
Alpha-chlordane	3.4E-13	2.8E-12	No	NA				0.0E+00	0.0E+00
Beta-BHC	3.4E-14	2.8E-13	No	1.8E+00	C	Heptic nodules	Diet/IRIS	6.2E-14	5.0E-13
Dieldrin	6.6E-14	5.6E-13	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	1.1E-12	8.9E-12
Delta-BHC	3.4E-14	2.8E-13	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	3.4E-14	2.8E-13	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	6.8E-14	5.6E-13	No	NA				0.0E+00	0.0E+00
Endosulfan Sulfate	6.8E-14	5.6E-13	No	NA				0.0E+00	0.0E+00
Endrin	6.8E-14	5.6E-13	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	6.8E-14	5.6E-13	No					0.0E+00	0.0E+00
Gamma-BHC	3.4E-14	2.8E-13	No	1.3E+00	B2-C	Liver	Diet/HEAST	4.5E-14	3.6E-13
Gamma-chlordane	3.4E-13	2.8E-12	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	4.5E-13	3.6E-12
Heptachlor	3.4E-14	2.8E-13	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.5E-13	1.3E-12
Heptachlor epoxide	3.4E-14	2.8E-13	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.1E-13	2.5E-12
Methoxychlor	3.4E-13	2.8E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	6.8E-13	5.6E-12	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	7.5E-13	6.2E-12
PCB's									
Aroclor-1016	3.4E-13	2.8E-12	No	7.7E+00				2.6E-12	2.2E-11
Aroclor-1221	3.4E-13	2.8E-12	No	7.7E+00				2.6E-12	2.2E-11
Aroclor-1232	3.4E-13	2.8E-12	No	7.7E+00				2.6E-12	2.2E-11
Aroclor-1242	4.1E-13	2.8E-12	No	7.7E+00				3.2E-12	2.2E-11
Aroclor-1248	3.6E-13	2.8E-12	No	7.7E+00				2.8E-12	2.2E-11
Aroclor-1254	5.6E-13	5.6E-12	No	7.7E+00				4.3E-12	4.3E-11
Aroclor-1260	6.8E-13	5.6E-12	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	5.3E-12	4.3E-11

TABLE A.3-7
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX	TOTAL HAZARD INDEX	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												1.1E-02	2.5E+00	MAXIMUM
												1.4E-03	1.3E-01	MEAN
VOLATILES														
1,1-Dichloroethene	1.2E-08	1.5E-08	No	9E-03		Liver lesions	Water/HEAST	1000	1	1.3E-06	1.6E-06			
1,1,1-Trichloroethane	1.3E-08	2.4E-08	No	9E-01		Hepatotoxicity	HEAST	100	1	1.4E-08	2.7E-08			
1,1,2-Trichloroethane	1.2E-08	1.5E-08	No	4E-02		Clinical chemistry alterations	Water/HEAST	100	1	3.0E-07	3.7E-07			
1,1,2,2-Tetrachloroethane	1.2E-08	1.5E-08	No	NA			NA/HEAST			NA	NA			
1,2-Dichloroethane	1.2E-08	8.3E-07	No	NA			NA/HEAST			NA	NA			
1,2-Dichloroethene	1.2E-08	1.5E-08	No	1E-01		Decreased hematocrit and hemoglobin	Gavage/HEAST	300	1	1.2E-07	1.5E-07			
1,2-Dichloropropane	1.2E-08	1.5E-08	No	NA			NA/HEAST			NA	NA			
2-Hexanone	2.5E-08	5.6E-08	No	NA			NA/HEAST			NA	NA			
Benzene	1.2E-08	1.5E-08	No	NA			NA/HEAST			NA	NA			
Bromodichloromethane	1.2E-08	1.5E-08	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000	1	6.1E-07	7.3E-07			
Bromoform	1.3E-08	2.9E-08	No	2E-01		Liver effects	Gavage/HEAST	100	1	6.6E-08	1.5E-07			
Carbon Tetrachloride	1.2E-08	1.5E-08	No	7E-03		Liver lesions	HEAST	100	1	1.7E-06	2.1E-06			
Chlorobenzene	1.2E-08	7.8E-08	No	2E-01		Liver and kidney effects	Oral/HEAST	100	1	6.0E-08	3.9E-07			
Chloromethane	2.3E-08	3.2E-08	No	NA			NA/HEAST			NA	NA			
Chloroform	1.1E-08	1.5E-08	No	1E-02		Liver lesions	HEAST	1000	1	1.1E-06	1.5E-06			
Dibromochloromethane	1.3E-08	2.9E-08	No	2E-01		Liver lesions	Gavage/HEAST	100	1	6.3E-08	1.5E-07			
Ethylbenzene	1.5E-08	9.3E-07	No	1E+00		Hepatotoxicity, nephrotoxicity	Oral/HEAST	100	1	1.5E-08	9.3E-07			
Styrene	1.2E-08	1.5E-08	No	2E+00		RBC and liver effects	Gavage/HEAST	100	1	6.1E-09	7.3E-09			
Tetrachloroethene	1.2E-08	9.3E-07	No	1E-01		Hepatotoxicity	Gavage/HEAST	100	1	1.2E-07	9.3E-06			
Toluene	1.2E-08	1.7E-08	No	2E+00		Changes in liver and kidney weight	HEAST	100	1	6.1E-09	8.3E-07			
Trichloroethene	1.1E-08	2.0E-08	No	NA			NA/HEAST			NA	NA			
Vinyl chbride	2.3E-08	3.2E-08	No	NA			NA/HEAST			NA	NA			
Xylenes	2.0E-08	1.8E-08	No	4E+00		No adverse effects	HEAST	100	1	5.0E-09	4.5E-07			

TABLE A.3-7 (cont.)
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL											
SEMIVOLATILES											
1,4-Dichlorobenzene	1.0E-07	5.4E-07	No	NA			NA/HEAST			NA	NA
2-Methylnaphthalene	9.6E-08	1.1E-06	No	4E-02			NA/HEAST			2.4E-06	2.8E-05
2,4-Dichlorophenol	9.5E-08	6.6E-07	No	3E-03		Immune function	Water/HEAST	100	1	3.2E-05	2.2E-04
2,4,5-Trichlorophenol	4.9E-07	3.4E-06	No	1E+00		Hepatotoxicity and kidney effects	Diet/HEAST	100	1	4.9E-07	3.4E-06
3,3-Dichlorobenzidine	2.1E-07	1.3E-06	No	NA			NA/HEAST			NA	NA
Acenaphthene	9.1E-08	1.4E-06	No	6E-01		Hepatotoxicity	Gavage/HEAST	300	1	1.5E-07	2.4E-06
Acenaphthylene	9.4E-08	6.6E-07	No	4E-02			NA/HEAST			2.3E-06	1.7E-05
Anthracene	6.6E-08	6.6E-07	No	3.0E+00		No adverse effects	Gavage/HEAST	300	1	2.9E-08	2.2E-07
Benzo(a)anthracene	1.1E-07	9.1E-07	No	4E-02			NA/HEAST			2.8E-06	2.3E-05
Benzo(a)pyrene	1.1E-07	7.8E-07	No	4E-02			NA/HEAST			2.7E-06	2.0E-05
Benzo(b)fluoranthene	1.0E-07	6.6E-07	No	4E-02			NA/HEAST			2.5E-06	1.7E-05
Benzo(ghi)perylene	1.1E-07	6.6E-07	No	4E-02			NA/HEAST			2.8E-06	1.7E-05
Benzo(k)fluoranthene	1.0E-07	7.1E-07	No	4E-02			NA/HEAST			2.6E-06	1.8E-05
Bis(2ethylhexyl)phthalate	1.2E-07	2.9E-06	No	2E-02		Increased relative liver weight	Diet/HEAST	1000	1	6.0E-06	1.5E-04
Butylbenzylphthalate	1.1E-07	6.6E-07	No	2E+00		Effects on body weight gain, testes, liver	Diet/HEAST	100	1	5.5E-08	3.3E-07
Chrysene	1.1E-07	8.8E-07	No	4E-02			NA/HEAST			2.7E-06	2.2E-05
Dibenzofuran	8.8E-08	9.8E-07	No	4E-02			NA/HEAST			2.2E-06	2.4E-05
Dibenzo(ah)anthracene	1.1E-07	6.6E-07	No	4E-02			NA/HEAST			2.8E-06	1.7E-05
Diethylphthalate	9.6E-08	6.6E-07	No	8E+00		Reduced terminal body weight	Diet/HEAST	100	1	1.2E-08	8.3E-08
Dimethylphthalate	1.1E-07	6.6E-07	No	1E+00		Effect on growth, some nephritic involvement	Diet/HEAST	100	1	1.1E-07	6.6E-07
Di-n-butylphthalate	9.7E-08	1.0E-06	No	1E+00		Mortality	Diet/HEAST	100	1	9.7E-08	1.0E-06
Di-n-octylphthalate	1.0E-07	6.6E-07	No	2E-02		Increased kidney and liver weight,SGOT,SGPT	Diet/HEAST	1000	1	5.2E-06	3.3E-05
Fluoranthene	1.7E-07	1.4E-06	No	4E-01		Neuropathy,liver and hematological changes	Gavage/HEAST	300	1	4.4E-07	3.6E-06
Fluorene	8.5E-08	1.1E-06	No	4E-01		Hematological changes	Gavage/HEAST	300	1	2.1E-07	2.7E-06
Indeno(123cd)pyrene	1.2E-07	6.6E-07	No	4E-02			NA/HEAST			2.9E-06	1.7E-05
Naphthalene	8.6E-08	7.3E-07	No	4E-02		Decreased body weight gain	Gavage/HEAST	1000	1	2.1E-06	1.8E-05
Phenanthrene	1.7E-07	1.5E-06	No	4E-02			NA/HEAST			4.2E-06	3.8E-05
Phenol	1.0E-07	6.6E-07	No	6E-01		Reduced fetal body weight	Gavage/HEAST	100	1	1.7E-07	1.1E-06
Pyrene	1.5E-07	1.1E-06	No	3E-01		Renal effects	Gavage/HEAST	300	1	5.1E-07	3.6E-06
PESTICIDES											
4,4'-DDD	5.6E-09	4.9E-08	No	NA			NA/HEAST			NA	NA
4,4'-DDE	4.3E-09	4.9E-08	No	NA			NA/HEAST			NA	NA
4,4'-DDT	5.4E-09	7.3E-08	No	5.0E-04		Liver lesions	Diet/HEAST	100	1	1.1E-05	1.5E-04
Aldrin	3.0E-09	2.4E-08	No	3.0E-05		Liver lesions	Diet/HEAST	1000	1	1.0E-04	8.2E-04
Alpha-BHC	3.0E-09	2.4E-08	No	NA			NA/HEAST			NA	NA
Alpha-chlordane	3.0E-08	2.4E-07	No	6E-05		Liver necrosis	Diet/HEAST	100	1	5.0E-04	4.1E-03
Beta-BHC	3.0E-09	2.4E-08	No	NA			NA/HEAST			NA	NA
Dieldrin	6.0E-09	4.9E-08	No	5.0E-05		Liver lesions	Diet/HEAST	100	1	1.2E-04	9.8E-04
Delta-BHC	3.0E-09	2.4E-08	No	NA			NA/HEAST			NA	NA
Endosulfan I	3.0E-09	2.4E-08	No	2.0E-04		Mild kidney lesions	Diet/HEAST	1000	1	1.5E-05	1.2E-04
Endosulfan II	6.0E-09	4.9E-08	No	2.0E-04		Mild kidney lesions	Diet/HEAST	1000	1	3.0E-05	2.4E-04
Endosulfan Sulfate	6.0E-09	4.9E-08	No	NA			NA/HEAST			NA	NA
Endrin	6.0E-09	4.9E-08	No	5.0E-04		Increased relative organ weights	Diet/HEAST	100	1	1.2E-05	9.8E-05
Endrin ketone	6.0E-09	4.9E-08	No	NA			NA/HEAST			NA	NA
Gamma-BHC	3.0E-09	2.4E-08	No	3.0E-03		Liver and kidney toxicity	Diet/HEAST	100	1	1.0E-06	8.2E-06
Gamma-chlordane	3.0E-08	2.4E-07	No	6.0E-05		Liver necrosis	Diet/HEAST	1000	1	5.0E-04	4.1E-03
Heptachlor	3.0E-09	2.4E-08	No	5.0E-04		Increased liver weight	Diet/HEAST	300	1	6.0E-06	4.9E-05
Heptachlor epoxide	3.0E-09	2.4E-08	No	NA			NA/HEAST			NA	NA
Methoxychlor	3.0E-08	2.4E-07	No	5.0E-03		Excessive loss of litters	HEAST	1000	1	6.0E-06	4.9E-05
Toxaphene	6.0E-08	4.9E-07	No	NA			NA/HEAST			NA	NA
PCB's											
Aroclor-1016	3.0E-08	2.4E-07	No	NA			NA/HEAST			NA	NA
Aroclor-1221	3.0E-08	2.4E-07	No	NA			NA/HEAST			NA	NA
Aroclor-1232	3.0E-08	2.4E-07	No	NA			NA/HEAST			NA	NA
Aroclor-1242	3.6E-08	2.4E-07	No	NA			NA/HEAST			NA	NA
Aroclor-1248	3.1E-08	2.4E-07	No	NA			NA/HEAST			NA	NA
Aroclor-1254	4.9E-08	4.9E-07	No	NA			NA/HEAST			NA	NA
Aroclor-1260	6.0E-08	4.9E-07	No	NA			NA/HEAST			NA	NA

TABLE A.3-8
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												2.5E+00	MAXIMUM
												1.3E-01	MEAN
INORGANICS													
Antimony	2.3E-05	7.6E-04	No	4E-04		Reduced life span, altered blood chemistry	Water/HEAST	1000	1	5.8E-02	2.0E+00		
Arsenic	3.9E-05	1.1E-04	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1	1	3.9E-02	1.1E-01		
Beryllium	1.5E-06	9.4E-06	No	5E-03		None observed	Water/HEAST	100	1	3.0E-04	1.9E-03		
Cadmium	2.1E-06	4.0E-05	No	NA			NA/HEAST			NA	NA		
Chromium	7.2E-05	3.7E-04	No	2E-02		Not defined	Water/HEAST	100	1	3.6E-03	1.8E-02		
Cobalt	4.8E-05	1.3E-04	No	NA			NA/HEAST			NA	NA		
Copper	1.6E-04	8.3E-03	No	4E-02		Local GI irritation	HEAST			4.1E-03	2.1E-01		
Lead	4.6E-05	1.2E-03	No	NA			NA/HEAST			NA	NA		
Manganese	1.6E-03	6.1E-03	No	1E-01		No effect	Occupational/HEAS	1	1	1.6E-02	6.1E-02		
Mercury	5.1E-07	1.4E-05	No	3E-04		Kidney effects	Oral/HEAST	1000	1	1.7E-03	4.5E-02		
Nickel	9.1E-05	3.2E-04	No	NA			NA/HEAST			NA	NA		
Selenium	1.7E-06	2.0E-05	No	NA			NA/HEAST			NA	NA		
Zinc	5.4E-04	9.8E-03	No	2E-01		Anemia	Therapeutic/HEAST	10	1	2.7E-03	4.9E-02		
VOLATILES													
1,1-Dichloroethene	2.2E-08	2.8E-08	No	9E-03		Liver Lesions	Water/HEAST	1000	1	2.5E-06	3.1E-06		
1,1,1-Trichloroethane	2.5E-08	4.7E-08	No	9E-01		Hepatotoxicity	HEAST	100	1	2.8E-08	5.2E-08		
1,1,2-Trichloroethane	2.3E-08	2.8E-08	No	4E-02		Clinical chemistry alterations	Water/HEAST	100	1	5.9E-07	7.0E-07		
1,1,2,2-Tetrachloroethane	2.3E-08	2.8E-08	No	NA			NA/HEAST			NA	NA		
1,2-Dichloroethane	2.2E-08	1.6E-06	No	NA			NA/HEAST			NA	NA		
1,2-Dichloroethene	2.3E-08	2.8E-08	No	1E-01		Decreased hematocrit and hemoglobin	Gavage/HEAST	300	1	2.3E-07	2.8E-07		
1,2-Dichloropropane	2.3E-08	2.8E-08	No	NA			NA/HEAST			NA	NA		
2-Hexanone	4.8E-08	1.1E-07	No	NA			NA/HEAST			NA	NA		
Benzene	2.3E-08	2.8E-08	No	NA			NA/HEAST			NA	NA		
Bromodichloromethane	2.3E-08	2.8E-08	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000	1	1.2E-06	1.4E-06		
Bromoform	2.5E-08	5.6E-08	No	2E-01		Liver effects	Gavage/HEAST	100	1	1.3E-07	2.8E-07		
Carbon Tetrachloride	2.3E-08	2.8E-08	No	7E-03		Liver Lesions	HEAST	100	1	3.3E-06	4.0E-06		
Chlorobenzene	2.3E-08	1.5E-07	No	2E-01		Liver and Kidney effects	Oral/HEAST	100	1	1.1E-07	7.5E-07		
Chloromethane	4.4E-08	6.1E-08	No	NA			NA/HEAST			NA	NA		
Chloroform	2.2E-08	2.8E-08	No	1E-02		Liver Lesions	HEAST	1000	1	2.2E-06	2.8E-06		
Dibromochloromethane	2.4E-08	5.6E-08	No	2E-01		Liver Lesions	Gavage/HEAST	100	1	1.2E-07	2.8E-07		
Ethylbenzene	2.9E-08	1.8E-06	No	1E+00		Hepatotoxicity, nephrotoxicity	Oral/HEAST	100	1	2.9E-08	1.8E-06		
Styrene	2.3E-08	2.8E-08	No	2E+00		RBC and liver effects	Gavage/HEAST	100	1	1.2E-08	1.4E-08		
Tetrachloroethene	2.3E-08	1.8E-06	No	1E-01		Hepatotoxicity	Gavage/HEAST	100	1	2.3E-07	1.8E-05		
Toluene	2.3E-08	3.2E-06	No	2E+00		Changes in liver and kidney weight	HEAST	100	1	1.2E-08	1.6E-06		
Trichloroethene	2.1E-08	3.8E-08	No	NA			NA/HEAST			NA	NA		
Vinyl chloride	4.4E-08	6.1E-08	No	NA			NA/HEAST			NA	NA		
Xylenes	3.9E-08	3.4E-06	No	4E+00		None observed	HEAST	100	1	9.6E-09	8.6E-07		

TABLE A.3-8 (cont.)
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											
SEMIVOLATILES											
1,4-Dichlorobenzene	1.9E-06	1.0E-05	No	NA			NA/HEAST			NA	NA
2-Methylnaphthalene	1.6E-06	2.1E-05	No	4E-02			NA/HEAST			4.6E-05	5.3E-04
2,4-Dichlorophenol	1.8E-06	1.3E-05	No	3E-03		Imune function	Water/HEAST	100	1	6.1E-04	4.2E-03
2,4,5-Trichlrophenol	9.4E-06	6.6E-05	No	1E+00		Hepatotoxicity and kidney effects	Diet/HEAST	1000	1	9.4E-06	6.6E-05
3,3-Dichlorobenzidine	4.1E-06	2.5E-05	No	NA			NA/HEAST			NA	NA
Acenaphthene	1.7E-06	2.7E-05	No	6E-01		Hepatotoxicity	Gavage/HEAST	300	1	2.9E-06	4.5E-05
Acenaphthylene	1.8E-06	1.3E-05	No	4E-02			NA/HEAST			4.5E-05	3.2E-04
Anthracene	1.7E-06	1.3E-05	No	3.0E+00		No observed effect	Gavage/HEAST	300	1	5.7E-07	4.2E-06
Benzo(a)anthracene	2.1E-06	1.7E-05	No	4E-02			NA/HEAST			5.3E-05	4.3E-04
Benzo(a)pyrene	2.0E-06	1.5E-05	No	4E-02			NA/HEAST			5.1E-05	3.8E-04
Benzo(b)fluoranthene	1.9E-06	1.3E-05	No	4E-02			NA/HEAST			4.8E-05	3.2E-04
Benzo(ghi)perylene	2.1E-06	1.3E-05	No	4E-02			NA/HEAST			5.4E-05	3.2E-04
Benzo(k)fluoranthene	2.0E-06	1.4E-05	No	4E-02			NA/HEAST			5.0E-05	3.4E-04
Bis(2ethylhexyl)phthalate	2.3E-06	5.6E-05	No	2E-02		Increased relative liver weight	Diet/HEAST	1000	1	1.2E-04	2.8E-03
Butylbenzylphthalate	2.1E-06	1.3E-05	No	2E+00		Effects weight gain, testes, liver	Diet/HEAST	100	1	1.1E-06	6.3E-06
Chrysene	2.0E-06	1.7E-05	No	4E-02			NA/HEAST			5.1E-05	4.2E-04
Dibenzofuran	1.7E-06	1.9E-05	No	4E-02			NA/HEAST			4.2E-05	4.7E-04
Dibenzo(ah)anthracene	2.2E-06	1.3E-05	No	4E-02			NA/HEAST			5.4E-05	3.2E-04
Diethylphthalate	1.8E-06	1.3E-05	No	8E+00		Reduced terminal body weight	Diet/HEAST	100	1	2.3E-07	1.6E-06
Dimethylphthalate	2.1E-06	1.3E-05	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		2.1E-06	1.3E-05
Di-n-butylphthalate	1.9E-06	1.9E-05	No	1E+00		Mortality	Diet/HEAST	100	1	1.9E-06	1.9E-05
Di-n-octylphthalate	2.0E-06	1.3E-05	No	2E-02		Elevated kidney and liver weights and SGOT, SGPT	Diet/HEAST	1000		1.0E-04	6.3E-04
Fluoranthene	3.4E-06	2.8E-05	No	4E-01		Neuropathy,changes in liver weight	Gavage/HEAST	300	1	8.4E-06	6.9E-05
Fluorene	1.6E-06	2.1E-05	No	4E-01		Hematological changes	Gavage/HEAST	300	1	4.1E-06	5.2E-05
Indeno(123cd)pyrene	2.2E-06	1.3E-05	No	4E-02			NA/HEAST			5.6E-05	3.2E-04
Naphthalene	1.6E-06	1.4E-05	No	4E-02		Decreased body weight gain	Gavage/HEAST	1000		4.1E-05	3.5E-04
Phenanthrene	3.2E-06	2.9E-05	No	4E-02			NA/HEAST			8.1E-05	7.3E-04
Phenol	1.9E-06	1.3E-05	No	6E-01		Reduced fetal body weight	Gavage/HEAST	100	1	3.2E-06	2.1E-05
Pyrene	3.0E-06	2.1E-05	No	3E-01		Renal effects	Gavage/HEAST	300	1	9.9E-06	6.9E-05
PESTICIDES											
4,4'-DDD	3.2E-08	2.8E-07	No	NA			NA/HEAST			NA	NA
4,4'-DDE	2.5E-08	2.8E-07	No	NA			NA/HEAST			NA	NA
4,4'-DDT	3.1E-08	4.2E-07	No	5.0E-04		Liver lesions	Diet/HEAST	100	1	6.2E-05	8.5E-04
Aldrin	1.7E-08	1.4E-07	No	3.0E-05		Liver toxicty	Diet/HEAST	1000	1	5.8E-04	4.7E-03
Alpha-BHC	1.7E-08	1.4E-07	No	NA			NA/HEAST			NA	NA
Alpha-chlordane	1.7E-07	1.4E-06	No	6E-05		Liver necrosis	Diet/HEAST	1000	1	2.9E-03	2.3E-02
Beta-BHC	1.7E-08	1.4E-07	No	NA			NA/HEAST			NA	NA
Dieldrin	3.4E-08	2.8E-07	No	5.0E-05		Liver lesions	Diet/HEAST	100	1	6.9E-04	5.6E-03
Delta-BHC	1.7E-08	1.4E-07	No	NA			NA/HEAST			NA	NA
Endosulfan I	1.7E-08	1.4E-07	No	2.0E-04		Mild kidney lesions	Diet/HEAST	1000	1	8.6E-05	7.0E-04
Endosulfan II	3.4E-08	2.8E-07	No	2.0E-04		Mild kidney lesions	Diet/HEAST	1000		1.7E-04	1.4E-03
Endosulfan Sulfate	3.4E-08	2.8E-07	No	NA			NA/HEAST			NA	NA
Endrin	3.4E-08	2.8E-07	No	5.0E-04		Increased relative organ weights	Diet/HEAST	100	1	6.9E-05	5.6E-04
Endrin ketone	3.4E-08	2.8E-07	No	NA			NA/HEAST			NA	NA
Gamma-BHC	1.7E-08	1.4E-07	No	3.0E-03		Liver and kidney toxicity	Diet/HEAST	100	1	5.8E-06	4.7E-05
Gamma-chlordane	1.7E-07	1.4E-06	No	6.0E-05		Liver necrosis	Diet/HEAST	1000	1	2.9E-03	2.3E-02
Heptachlor	1.7E-08	1.4E-07	No	5.0E-04		Increased liver weight	Diet/HEAST	300	1	3.5E-05	2.8E-04
Heptachlor epoxide	1.7E-08	1.4E-07	No	NA			NA/HEAST			NA	NA
Methoxychlor	1.7E-07	1.4E-06	No	5.0E-03		Exsessive loss of litters	HEAST	1000	1	3.5E-05	2.8E-04
Toxaphene	3.4E-07	2.8E-06	No	NA			NA/HEAST			NA	NA
PCB's											
Aroclor-1016	1.7E-07	1.4E-06	No	NA			NA/HEAST			NA	NA
Aroclor-1221	1.7E-07	1.4E-06	No	NA			NA/HEAST			NA	NA
Aroclor-1232	1.7E-07	1.4E-06	No	NA			NA/HEAST			NA	NA
Aroclor-1242	2.1E-07	1.4E-06	No	NA			NA/HEAST			NA	NA
Aroclor-1248	1.8E-07	1.4E-06	No	NA			NA/HEAST			NA	NA
Aroclor-1254	2.8E-07	2.8E-06	No	NA			NA/HEAST			NA	NA
Aroclor-1260	3.4E-07	2.8E-06	No	NA			NA/HEAST			NA	NA

TABLE A.3-9
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	
												2.6E-03	MAXIMUM
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST												6.7E-04	MEAN
INORGANICS													
Antimony	9.6E-10	3.3E-08	No	4E-04			NA/HEAST			2.4E-06	8.2E-05		
Arsenic	1.6E-09	4.5E-09	No	1E-03						1.6E-06	4.5E-06		
Beryllium	6.3E-11	3.9E-10	No	5E-03						1.3E-08	7.8E-08		
Cadmium	8.8E-11	1.7E-09	No	1E-03						8.8E-08	1.7E-06		
Chromium	3.0E-09	1.5E-08	No	7E-02		Nasal mucosa atrophy	HEAST	30	1	4.3E-08	2.2E-07		
Cobalt	2.0E-09	5.5E-09	No	NA			NA/HEAST			NA	NA		
Copper	6.8E-09	3.4E-07	No	NA			NA/HEAST			NA	NA		
Lead	6.5E-09	1.7E-07	No	NA			NA/HEAST			NA	NA		
Manganese	6.7E-08	2.5E-07	No	1E-04		Respiratory and psychomotor disturbances	Occupational/HEAS	900	1	6.7E-04	2.5E-03		
Mercury	2.1E-11	5.7E-10	No	9E-05		Neurotoxicity	Occupational/HEAS	30	1	2.4E-07	6.3E-06		
Nickel	3.6E-09	1.3E-08	No	NA			NA/HEAST			NA	NA		
Selenium	7.2E-11	6.2E-10	No	NA			NA/HEAST			NA	NA		
Zinc	2.2E-08	4.1E-07	No	2E-01						1.1E-07	2.0E-06		
VOLATILES													
1,1-Dichloroethene	9.3E-13	1.2E-12	No	1E+00		Kidney damage	HEAST	100	1	9.3E-13	1.2E-12		
1,1,1-Trichloroethane	1.0E-12	2.0E-12	No	3E+00		Hepatotoxicity	HEAST	100	1	3.5E-13	6.5E-13		
1,1,2-Trichloroethane	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
1,1,2,2-Tetrachloroethane	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
1,2-Dichloroethane	9.2E-13	6.7E-11	No	NA			NA/HEAST			NA	NA		
1,2-Dichloroethene	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
1,2-Dichloropropane	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
2-Hexanone	2.0E-12	4.5E-12	No	NA			NA/HEAST			NA	NA		
Benzene	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
Bromodichloromethane	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
Bromoform	1.1E-12	2.3E-12	No	NA			NA/HEAST			NA	NA		
Carbon Tetrachloride	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
Chlorobenzene	9.6E-13	6.3E-12	No	5E-02		Liver and kidney effects	HEAST	1000	1	1.9E-11	1.3E-10		
Chloromethane	1.9E-12	2.5E-12	No	NA			NA/HEAST			NA	NA		
Chloroform	9.1E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
Dibromochloromethane	1.0E-12	2.3E-12	No	NA			NA/HEAST			NA	NA		
Ethylbenzene	1.2E-12	7.4E-11	No	3E-01		Developmental toxicity	HEAST	300	1	4.0E-12	2.5E-10		
Styrene	9.8E-13	1.2E-12	No	NA			NA/HEAST			NA	NA		
Tetrachloroethene	9.4E-13	7.4E-11	No	NA			NA/HEAST			NA	NA		
Toluene	9.8E-13	1.3E-10	No	6E-01		CNS effects, eyes and nose irritation	HEAST	100	1	1.6E-12	2.2E-10		
Trichloroethene	8.7E-13	1.6E-12	No	NA			NA/HEAST			NA	NA		
Vinyl chloride	1.9E-12	2.5E-12	No	NA			NA/HEAST			NA	NA		
Xylenes	1.6E-12	1.4E-10	No	9E-02		CNS effects, nose and throat irritation	HEAST	100	1	1.8E-11	1.6E-09		

TABLE A.3-9 (cont.)
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST											
SEMIVOLATILES											
1,4-Dichlorobenzene	8.1E-11	4.3E-10	No	2E-01		Liver and kidney effects	HEAST	100	1	4.0E-10	2.2E-09
2-Methylnaphthalene	7.7E-11	8.8E-10	No	4E-02			NA/HEAST			1.9E-09	2.2E-08
2,4-Dichlorophenol	7.6E-11	5.3E-10	No	NA			NA/HEAST			NA	NA
2,4,5-Trichlorophenol	3.9E-10	2.7E-09	No	NA			NA/HEAST			NA	NA
3,3-Dichlorobenzidine	1.7E-10	1.1E-09	No	NA			NA/HEAST			NA	NA
Acenaphthene	7.3E-11	1.1E-09	No	6E-01						1.2E-10	1.9E-09
Acenaphthylene	7.5E-11	5.3E-10	No	DI			NA/HEAST			NA	NA
Anthracene	7.1E-11	5.3E-10	No	3E+00						2.4E-11	1.8E-10
Benzo(a)anthracene	6.8E-11	7.2E-10	No	4E-02			NA/HEAST			2.2E-09	1.8E-08
Benzo(a)pyrene	6.5E-11	6.3E-10	No	4E-02			NA/HEAST			2.1E-09	1.6E-08
Benzo(b)fluoranthene	6.0E-11	5.3E-10	No	4E-02			NA/HEAST			2.0E-09	1.3E-08
Benzo(ghi)perylene	6.9E-11	5.3E-10	No	4E-02			NA/HEAST			2.2E-09	1.3E-08
Benzo(k)fluoranthene	6.4E-11	5.7E-10	No	4E-02			NA/HEAST			2.1E-09	1.4E-08
Bis(2ethylhexyl)phthalate	9.7E-11	2.3E-09	No	NA			NA/HEAST			NA	NA
Butylbenzylphthalate	6.8E-11	5.3E-10	No	NA			NA/HEAST			NA	NA
Chrysene	6.5E-11	7.0E-10	No	4E-02			NA/HEAST			2.1E-09	1.8E-08
Dibenzofuran	7.0E-11	7.8E-10	No	NA			NA/HEAST			NA	NA
Dibenzo(ah)anthracene	9.0E-11	5.3E-10	No	4E-02			NA/HEAST			2.3E-09	1.3E-08
Diethylphthalate	7.7E-11	5.3E-10	No	8E+00						9.6E-12	6.6E-11
Dimethylphthalate	8.6E-11	5.3E-10	No	NA			NA/HEAST			NA	NA
Di-n-butylphthalate	7.7E-11	8.0E-10	No	1E+00						7.7E-11	8.0E-10
Di-n-octylphthalate	8.3E-11	5.3E-10	No	2E-02						4.1E-09	2.6E-08
Fluoranthene	1.4E-10	1.2E-09	No	4E-01						3.5E-10	2.9E-09
Fluorene	6.8E-11	6.6E-10	No	4E-01						1.7E-10	2.2E-09
Indeno(123cd)pyrene	9.8E-11	5.3E-10	No	4E-02			NA/HEAST			2.3E-09	1.3E-08
Naphthalene	6.9E-11	5.9E-10	No	4E-02						1.7E-09	1.5E-08
Phenanthrene	1.3E-10	1.2E-09	No	4E-02			NA/HEAST			3.4E-09	3.0E-08
Phenol	8.0E-11	5.3E-10	No	NA			NA/HEAST			NA	NA
Pyrene	1.2E-10	8.6E-10	No	3E-01						4.1E-10	2.9E-09
PESTICIDES											
4,4'-DDD	4.5E-12	3.9E-11	No	NA			NA/HEAST			NA	NA
4,4'-DDE	3.5E-12	3.9E-11	No	NA			NA/HEAST			NA	NA
4,4'-DDT	4.3E-12	5.9E-11	No	5E-04		Liver lesions				8.6E-09	1.2E-07
Aldrin	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Alpha-BHC	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Alpha-chlordane	2.4E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Beta-BHC	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Dieldrin	4.8E-12	3.9E-11	No	NA			NA/HEAST			NA	NA
Delta-BHC	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Endosulfan I	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Endosulfan II	4.8E-12	3.9E-11	No	NA			NA/HEAST			NA	NA
Endosulfan Sulfate	4.8E-12	3.9E-11	No	NA			NA/HEAST			NA	NA
Endrin	4.8E-12	3.9E-11	No	NA			NA/HEAST			NA	NA
Endrin ketone	4.8E-12	3.9E-11	No	NA			NA/HEAST			NA	NA
Gamma-BHC	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Gamma-chlordane	2.4E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Heptachlor	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Heptachlor epoxide	2.4E-12	2.0E-11	No	NA			NA/HEAST			NA	NA
Methoxychlor	2.4E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Toxaphene	4.8E-11	3.9E-10	No	NA			NA/HEAST			NA	NA
PCB's											
Aroclor-1016	2.4E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Aroclor-1221	2.4E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Aroclor-1232	2.4E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Aroclor-1242	2.9E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Aroclor-1248	2.5E-11	2.0E-10	No	NA			NA/HEAST			NA	NA
Aroclor-1254	3.9E-11	3.9E-10	No	NA			NA/HEAST			NA	NA
Aroclor-1260	4.8E-11	3.9E-10	No	NA			NA/HEAST			NA	NA

TABLE A.4-1
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS DOSE NONCANCER MEAN (mg/kg/day)	ABS DOSE CANCER MEAN (mg/kg/day)	ABS DOSE NONCANCER MAX (mg/kg/day)	ABS DOSE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.8	91.4	1.0E-06	500	0.00	250	25	70.0	9125	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.2	20.0	1.0E-06	500	0.00	250	25	70.0	9125	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.5	1.7	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.7	21.8	1.0E-06	500	0.00	250	25	70.0	9125	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.3	69.2	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.4	20.2	1.0E-06	500	0.00	250	25	70.0	9125	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.2	6070.0	1.0E-06	500	0.00	250	25	70.0	9125	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	98.8	1980.0	1.0E-06	500	0.00	250	25	70.0	9125	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	382.5	678.0	1.0E-06	500	0.00	250	25	70.0	9125	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.1	1.6	1.0E-06	500	0.00	250	25	70.0	9125	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	21.5	105.0	1.0E-06	500	0.00	250	25	70.0	9125	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.4	2.0	1.0E-06	500	0.00	250	25	70.0	9125	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	245.2	19200.0	1.0E-06	500	0.00	250	25	70.0	9125	25550
VOLATILES														
1,1-Dichloroethene	9.1E-09	3.3E-09	2.2E-08	7.9E-09	0.0037	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,1-Trichloroethane	1.0E-08	3.6E-09	2.2E-08	7.9E-09	0.0041	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,2-Trichloroethane	9.6E-09	3.4E-09	2.2E-08	7.9E-09	0.0039	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,2,2-Tetrachloroethane	1.1E-08	4.1E-09	2.9E-08	1.0E-08	0.0046	0.0120	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,2-Dichloroethane	9.1E-09	3.3E-09	2.2E-08	7.9E-09	0.0037	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,2-Dichloroethene	9.1E-09	3.3E-09	2.2E-08	7.9E-09	0.0037	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,2-Dichloropropane	9.8E-09	3.5E-09	2.2E-08	7.9E-09	0.0040	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
2-Hexanone	2.2E-08	8.0E-09	6.1E-08	2.2E-08	0.0091	0.0250	1.0E-06	500	0.50	250	25	70.0	9125	25550
Benzene	9.5E-09	3.4E-09	2.2E-08	7.9E-09	0.0039	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
Bromodichloromethane	9.5E-09	3.4E-09	2.2E-08	7.9E-09	0.0039	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
Bromoform	9.5E-09	3.4E-09	2.2E-08	7.9E-09	0.0039	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
Carbon Tetrachloride	9.6E-09	3.4E-09	2.2E-08	7.9E-09	0.0039	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
Chlorobenzene	1.1E-08	3.8E-09	2.9E-08	1.0E-08	0.0043	0.0120	1.0E-06	500	0.50	250	25	70.0	9125	25550
Chloroform	1.9E-08	6.7E-09	4.2E-08	1.5E-08	0.0076	0.0170	1.0E-06	500	0.50	250	25	70.0	9125	25550
Chloromethane	9.1E-09	3.3E-09	2.2E-08	7.9E-09	0.0037	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
Dibromochloromethane	9.5E-09	3.4E-09	2.2E-08	7.9E-09	0.0039	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
Ethylbenzene	1.1E-08	3.8E-09	2.9E-08	1.0E-08	0.0043	0.0120	1.0E-06	500	0.50	250	25	70.0	9125	25550
Styrene	1.1E-08	4.1E-09	2.8E-08	1.0E-08	0.0046	0.0120	1.0E-06	500	0.50	250	25	70.0	9125	25550
Tetrachloroethene	1.0E-08	3.6E-09	2.9E-08	1.0E-08	0.0041	0.0120	1.0E-06	500	0.50	250	25	70.0	9125	25550
Toluene	9.7E-09	3.5E-09	2.9E-08	1.0E-08	0.0040	0.0120	1.0E-06	500	0.50	250	25	70.0	9125	25550
Trichloroethene	9.5E-09	3.4E-09	2.2E-08	7.9E-09	0.0039	0.0090	1.0E-06	500	0.50	250	25	70.0	9125	25550
Vinyl chloride	1.9E-08	6.7E-09	4.2E-08	1.5E-08	0.0076	0.0170	1.0E-06	500	0.50	250	25	70.0	9125	25550
Xylenes	1.1E-08	4.1E-09	2.9E-08	1.0E-08	0.0046	0.0120	1.0E-06	500	0.50	250	25	70.0	9125	25550

TABLE A.4-1 (cont.)
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS DOSE NONCANCER MEAN (mg/kg/day)	ABS DOSE CANCER MEAN (mg/kg/day)	ABS DOSE NONCANCER MAX (mg/kg/day)	ABS DOSE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	1.1E-07	3.8E-08	1.1E-07	3.8E-08	0.44	0.44	1.0E-06	500	0.05	250	25	70.0	9125	25550
2-Methylnaphthalene	6.5E-08	2.3E-08	2.7E-07	9.6E-08	0.27	1.10	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,4-Dichlorophenol	1.1E-07	3.8E-08	1.1E-07	3.8E-08	0.44	0.44	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,4,5-Trichlorophenol	5.4E-07	1.9E-07	5.4E-07	1.9E-07	2.20	2.20	1.0E-06	500	0.05	250	25	70.0	9125	25550
3,3-Dichlorobenzidine	1.9E-07	6.8E-08	3.9E-06	1.4E-06	0.77	16.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Acenaphthene	7.8E-08	2.8E-08	9.3E-07	3.3E-07	0.32	3.80	1.0E-06	500	0.05	250	25	70.0	9125	25550
Acenaphthylene	8.3E-08	3.0E-08	1.1E-07	3.8E-08	0.34	0.44	1.0E-06	500	0.05	250	25	70.0	9125	25550
Anthracene	9.4E-08	3.4E-08	1.7E-06	5.9E-07	0.38	6.80	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)anthracene	1.7E-07	6.1E-08	4.6E-06	1.7E-06	0.70	19.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)pyrene	2.0E-07	7.3E-08	3.9E-06	1.4E-06	0.84	16.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(b)fluoranthene	2.3E-07	8.2E-08	3.7E-06	1.3E-06	0.94	15.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(ghi)perylene	1.8E-07	6.4E-08	2.1E-06	7.3E-07	0.74	8.40	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(k)fluoranthene	2.1E-07	7.3E-08	3.4E-06	1.2E-06	0.84	14.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Bis(2ethylhexyl)phthalate	9.0E-08	3.2E-08	1.9E-06	6.9E-07	0.37	7.90	1.0E-06	500	0.05	250	25	70.0	9125	25550
Butylbenzylphthalate	6.9E-08	2.5E-08	1.9E-06	6.9E-07	0.28	7.90	1.0E-06	500	0.05	250	25	70.0	9125	25550
Chrysene	2.0E-07	7.2E-08	4.4E-06	1.6E-06	0.82	18.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dibenzo(ah)anthracene	6.7E-08	2.4E-08	6.8E-07	2.4E-07	0.27	2.80	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dibenzofuran	1.0E-07	3.7E-08	1.9E-06	6.9E-07	0.43	7.90	1.0E-06	500	0.05	250	25	70.0	9125	25550
Diethylphthalate	7.9E-08	2.8E-08	1.1E-07	3.8E-08	0.32	0.44	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dimethylphthalate	1.1E-07	3.8E-08	1.1E-07	3.8E-08	0.44	0.44	1.0E-06	500	0.05	250	25	70.0	9125	25550
Di-n-butylphthalate	1.6E-08	5.9E-07	1.6E-08	5.9E-07	6.70	6.70	1.0E-06	500	0.05	250	25	70.0	9125	25550
Di-n-octylphthalate	1.0E-07	3.7E-08	1.9E-06	6.9E-07	0.42	7.90	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluoranthene	3.4E-07	1.2E-07	1.1E-05	4.0E-06	1.39	46.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluorene	8.0E-08	2.9E-08	1.1E-06	4.1E-07	0.33	4.70	1.0E-06	500	0.05	250	25	70.0	9125	25550
Indeno(123cd)pyrene	1.8E-07	6.3E-08	2.2E-06	7.8E-07	0.72	8.90	1.0E-06	500	0.05	250	25	70.0	9125	25550
Naphthalene	7.6E-08	2.7E-08	7.3E-07	2.6E-07	0.31	3.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Phenanthrene	2.1E-07	7.4E-08	6.4E-06	2.3E-06	0.85	28.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Phenol	1.1E-07	3.8E-08	1.1E-07	3.8E-08	0.44	0.44	1.0E-06	500	0.05	250	25	70.0	9125	25550
Pyrene	3.1E-07	1.1E-07	6.6E-06	2.4E-06	1.26	27.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
PESTICIDES														
4,4'-DDD	6.2E-09	2.2E-09	4.6E-08	1.7E-08	0.026	0.190	1.0E-06	500	0.05	250	25	70.0	9125	25550
4,4'-DDE	5.2E-09	1.9E-09	5.9E-09	2.1E-09	0.021	0.024	1.0E-06	500	0.05	250	25	70.0	9125	25550
4,4'-DDT	1.0E-08	3.6E-09	4.4E-07	1.6E-07	0.041	1.800	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aldrin	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Alpha-BHC	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Alpha-chlordane	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.095	0.095	1.0E-06	500	0.05	250	25	70.0	9125	25550
Beta-BHC	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dieldrin	4.6E-09	1.7E-09	4.6E-09	1.7E-09	0.019	0.019	1.0E-06	500	0.05	250	25	70.0	9125	25550
Delta-BHC	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Endosulfan I	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Endosulfan II	4.6E-09	1.7E-09	4.6E-09	1.7E-09	0.019	0.019	1.0E-06	500	0.05	250	25	70.0	9125	25550
Endosulfan Sulfate	4.6E-09	1.7E-09	4.6E-09	1.7E-09	0.019	0.019	1.0E-06	500	0.05	250	25	70.0	9125	25550
Endrin	4.6E-09	1.7E-09	4.6E-09	1.7E-09	0.019	0.019	1.0E-06	500	0.05	250	25	70.0	9125	25550
Endrin ketone	4.6E-09	1.7E-09	4.6E-09	1.7E-09	0.019	0.019	1.0E-06	500	0.05	250	25	70.0	9125	25550
Gamma-BHC	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Gamma-chlordane	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.095	0.095	1.0E-06	500	0.05	250	25	70.0	9125	25550
Heptachlor	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Heptachlor epoxide	2.3E-09	8.3E-10	2.3E-09	8.3E-10	0.010	0.010	1.0E-06	500	0.05	250	25	70.0	9125	25550
Methoxychlor	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.095	0.095	1.0E-06	500	0.05	250	25	70.0	9125	25550
Toxaphene	4.6E-08	1.7E-08	4.6E-08	1.7E-08	0.190	0.190	1.0E-06	500	0.05	250	25	70.0	9125	25550
PCB's														
Aroclor-1016	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.10	0.10	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aroclor-1221	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.10	0.10	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aroclor-1232	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.10	0.10	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aroclor-1242	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.10	0.10	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aroclor-1248	2.3E-08	8.3E-09	2.3E-08	8.3E-09	0.10	0.10	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aroclor-1254	5.4E-08	1.9E-08	1.5E-07	5.3E-08	0.22	0.61	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aroclor-1260	4.6E-08	1.7E-08	4.6E-08	1.7E-08	0.19	0.19	1.0E-06	500	0.05	250	25	70.0	9125	25550

TABLE A.4-2
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	3.3E-08	1.2E-06	4.5E-05	1.6E-05	6.84	91.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Arsenic	2.5E-08	9.1E-07	9.8E-06	3.5E-06	5.19	20.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Beryllium	2.3E-07	8.2E-08	8.3E-07	3.0E-07	0.47	1.70	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cadmium	3.6E-07	1.3E-07	1.1E-05	3.8E-06	0.74	21.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chromium	9.0E-06	3.2E-06	3.4E-05	1.2E-05	18.32	69.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cobalt	4.6E-06	1.6E-06	9.9E-06	3.5E-06	9.38	20.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
Copper	4.2E-05	1.5E-05	3.0E-03	1.1E-03	85.24	6070.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Lead	1.5E-05	5.2E-06	2.9E-04	1.0E-04	98.60	1980.00	50	1.0E-06	250	25	0.30	70.0	9125	25550
Manganese	1.9E-04	6.7E-05	3.3E-04	1.2E-04	382.52	678.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Mercury	4.9E-08	1.7E-08	7.8E-07	2.8E-07	0.10	1.60	50	1.0E-06	250	25	1.00	70.0	9125	25550
Nickel	1.1E-05	3.8E-06	5.1E-05	1.8E-05	21.54	105.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Selenium	1.7E-07	6.2E-08	9.8E-07	3.5E-07	0.36	2.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Zinc	1.2E-04	4.3E-05	9.4E-03	3.4E-03	245.18	19200.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
VOLATILES														
1,1-Dichloroethene	1.8E-09	6.5E-10	4.4E-09	1.6E-09	0.0037	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,1-Trichloroethane	2.0E-09	7.2E-10	4.4E-09	1.6E-09	0.0041	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2-Trichloroethane	1.9E-09	6.8E-10	4.4E-09	1.6E-09	0.0039	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2,2-Tetrachloroethane	2.3E-09	8.1E-10	5.9E-09	2.1E-09	0.0046	0.0120	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloroethane	1.8E-09	6.5E-10	4.4E-09	1.6E-09	0.0037	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloroethene	1.8E-09	6.5E-10	4.4E-09	1.6E-09	0.0037	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloropropane	2.0E-09	7.0E-10	4.4E-09	1.6E-09	0.0040	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
2-Hexanone	4.5E-09	1.6E-09	1.2E-08	4.4E-09	0.0091	0.0250	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzene	1.9E-09	6.8E-10	4.4E-09	1.6E-09	0.0039	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromodichloromethane	1.9E-09	6.8E-10	4.4E-09	1.6E-09	0.0039	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromoform	1.9E-09	6.8E-10	4.4E-09	1.6E-09	0.0039	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
Carbon Tetrachloride	1.9E-09	6.8E-10	4.4E-09	1.6E-09	0.0039	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chlorobenzene	2.1E-09	7.6E-10	5.9E-09	2.1E-09	0.0043	0.0120	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chloroform	3.7E-09	1.3E-09	8.3E-09	3.0E-09	0.0076	0.0170	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chloromethane	1.8E-09	6.5E-10	4.4E-09	1.6E-09	0.0037	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibromochloromethane	1.9E-09	6.8E-10	4.4E-09	1.6E-09	0.0039	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
Ethylbenzene	2.1E-09	7.6E-10	5.9E-09	2.1E-09	0.0043	0.0120	50	1.0E-06	250	25	1.00	70.0	9125	25550
Styrene	2.3E-09	8.1E-10	5.9E-09	2.1E-09	0.0046	0.0120	50	1.0E-06	250	25	1.00	70.0	9125	25550
Tetrachloroethene	2.0E-09	7.2E-10	5.9E-09	2.1E-09	0.0041	0.0120	50	1.0E-06	250	25	1.00	70.0	9125	25550
Toluene	1.9E-09	6.9E-10	5.9E-09	2.1E-09	0.0040	0.0120	50	1.0E-06	250	25	1.00	70.0	9125	25550
Trichloroethene	1.9E-09	6.8E-10	4.4E-09	1.6E-09	0.0039	0.0090	50	1.0E-06	250	25	1.00	70.0	9125	25550
Vinyl chloride	3.7E-09	1.3E-09	8.3E-09	3.0E-09	0.0076	0.0170	50	1.0E-06	250	25	1.00	70.0	9125	25550
Xylenes	2.3E-09	8.1E-10	5.9E-09	2.1E-09	0.0046	0.0120	50	1.0E-06	250	25	1.00	70.0	9125	25550

TABLE A.4-2 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,4-Dichlorobenzene	2.2E-07	7.7E-08	2.2E-07	7.7E-08	0.44	0.44	50	1.0E-06	250	25	1.00	70.0	9125	25550
2-Methylnaphthalene	1.3E-07	4.6E-08	5.4E-07	1.9E-07	0.27	1.10	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4-Dichlorophenol	2.2E-07	7.7E-08	2.2E-07	7.7E-08	0.44	0.44	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4,5-Trichlorophenol	1.1E-06	3.8E-07	1.1E-06	3.8E-07	2.20	2.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
3,3-Dichlorobenzidine	3.8E-07	1.4E-07	7.8E-08	2.8E-06	0.77	16.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Acenaphthene	1.6E-07	5.6E-08	1.9E-06	6.6E-07	0.32	3.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Acenaphthylene	1.7E-07	5.9E-08	2.2E-07	7.7E-08	0.34	0.44	50	1.0E-06	250	25	1.00	70.0	9125	25550
Anthracene	1.9E-07	6.7E-08	3.3E-06	1.2E-06	0.38	6.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)anthracene	3.4E-07	1.2E-07	9.3E-06	3.3E-06	0.70	19.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)pyrene	4.1E-07	1.5E-07	7.8E-06	2.8E-06	0.84	16.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(b)fluoranthene	4.6E-07	1.6E-07	7.3E-06	2.6E-06	0.94	15.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(ghi)perylene	3.6E-07	1.3E-07	4.1E-06	1.5E-06	0.74	8.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(k)fluoranthene	4.1E-07	1.5E-07	6.6E-06	2.4E-06	0.84	14.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bis(2ethylhexyl)phthalate	1.8E-07	6.4E-08	3.9E-06	1.4E-06	0.37	7.90	50	1.0E-06	250	25	1.00	70.0	9125	25550
Butylbenzylphthalate	1.4E-07	4.9E-08	3.9E-06	1.4E-06	0.28	7.90	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chrysene	4.0E-07	1.4E-07	8.8E-06	3.1E-06	0.82	18.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibenzo(ah)anthracene	1.3E-07	4.8E-08	1.4E-06	4.9E-07	0.27	2.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibenzofuran	2.1E-07	7.5E-08	3.9E-06	1.4E-06	0.43	7.90	50	1.0E-06	250	25	1.00	70.0	9125	25550
Diethylphthalate	1.6E-07	5.7E-08	2.2E-07	7.7E-08	0.32	0.44	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dimethylphthalate	2.2E-07	7.7E-08	2.2E-07	7.7E-08	0.44	0.44	50	1.0E-06	250	25	1.00	70.0	9125	25550
Di-n-butylphthalate	3.3E-06	1.2E-06	3.3E-06	1.2E-06	6.70	6.70	50	1.0E-06	250	25	1.00	70.0	9125	25550
Di-n-octylphthalate	2.1E-07	7.3E-08	3.9E-06	1.4E-06	0.42	7.90	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluoranthene	6.8E-07	2.4E-07	2.3E-05	8.0E-06	1.39	46.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluorene	1.6E-07	5.7E-08	2.3E-06	8.2E-07	0.33	4.70	50	1.0E-06	250	25	1.00	70.0	9125	25550
Indeno(123cd)pyrene	3.5E-07	1.3E-07	4.4E-06	1.6E-06	0.72	8.90	50	1.0E-06	250	25	1.00	70.0	9125	25550
Naphthalene	1.5E-07	5.4E-08	1.5E-06	5.2E-07	0.31	3.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Phenanthrene	4.2E-07	1.5E-07	1.3E-05	4.5E-06	0.85	26.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Phenol	2.2E-07	7.7E-08	2.2E-07	7.7E-08	0.44	0.44	50	1.0E-06	250	25	1.00	70.0	9125	25550
Pyrene	6.2E-07	2.2E-07	1.3E-05	4.7E-06	1.26	27.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
PESTICIDES														
4,4'-DDD	3.7E-09	1.3E-09	2.8E-08	1.0E-08	0.026	0.190	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDE	3.1E-09	1.1E-09	3.5E-09	1.3E-09	0.021	0.024	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDT	6.0E-09	2.1E-09	2.6E-07	9.4E-08	0.041	1.800	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aldrin	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Alpha-BHC	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Alpha-chlordane	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.095	0.095	50	1.0E-06	250	25	0.30	70.0	9125	25550
Beta-BHC	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Dieldrin	2.8E-09	1.0E-09	2.8E-09	1.0E-09	0.019	0.019	50	1.0E-06	250	25	0.30	70.0	9125	25550
Delta-BHC	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Endosulfan I	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Endosulfan II	2.8E-09	1.0E-09	2.8E-09	1.0E-09	0.019	0.019	50	1.0E-06	250	25	0.30	70.0	9125	25550
Endosulfan Sulfate	2.8E-09	1.0E-09	2.8E-09	1.0E-09	0.019	0.019	50	1.0E-06	250	25	0.30	70.0	9125	25550
Endrin	2.8E-09	1.0E-09	2.8E-09	1.0E-09	0.019	0.019	50	1.0E-06	250	25	0.30	70.0	9125	25550
Endrin ketone	2.8E-09	1.0E-09	2.8E-09	1.0E-09	0.019	0.019	50	1.0E-06	250	25	0.30	70.0	9125	25550
Gamma-BHC	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Gamma-chlordane	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.095	0.095	50	1.0E-06	250	25	0.30	70.0	9125	25550
Heptachlor	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Heptachlor epoxide	1.4E-09	5.0E-10	1.4E-09	5.0E-10	0.010	0.010	50	1.0E-06	250	25	0.30	70.0	9125	25550
Methoxychlor	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.095	0.095	50	1.0E-06	250	25	0.30	70.0	9125	25550
Toxaphene	2.8E-08	1.0E-08	2.8E-08	1.0E-08	0.190	0.190	50	1.0E-06	250	25	0.30	70.0	9125	25550
PCB's														
Aroclor-1016	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.10	0.10	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aroclor-1221	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.10	0.10	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aroclor-1232	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.10	0.10	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aroclor-1242	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.10	0.10	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aroclor-1248	1.4E-08	5.0E-09	1.4E-08	5.0E-09	0.10	0.10	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aroclor-1254	3.2E-08	1.2E-08	9.0E-08	3.2E-08	0.22	0.61	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aroclor-1260	2.8E-08	1.0E-08	2.8E-08	1.0E-08	0.19	0.19	50	1.0E-06	250	25	0.30	70.0	9125	25550

TABLE A.4-3
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	WATER MEAN (mg/liter)	WATER MAX (mg/liter)	IR (liter/day)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS												
Antimony	3.80E-04	1.29E-04	2.53E-03	9.05E-04	0.037	0.259	1.0	250	25	70	9125	25550
Arsenic	2.60E-04	9.99E-05	6.75E-04	3.12E-04	0.029	0.089	1.0	250	25	70	9125	25550
Beryllium	2.19E-05	7.83E-06	1.25E-04	4.47E-05	0.002	0.013	1.0	250	25	70	9125	25550
Cadmium	4.96E-05	1.77E-05	5.59E-04	2.00E-04	0.005	0.057	1.0	250	25	70	9125	25550
Chromium	2.98E-04	1.06E-04	2.43E-03	8.67E-04	0.030	0.248	1.0	250	25	70	9125	25550
Cobalt	5.71E-04	2.04E-04	7.21E-03	2.58E-03	0.058	0.737	1.0	250	25	70	9125	25550
Copper	1.41E-03	5.05E-04	3.09E-02	1.10E-02	0.145	3.160	1.0	250	25	70	9125	25550
Lead	7.90E-04	2.82E-04	4.70E-02	1.68E-02	0.081	4.800	1.0	250	25	70	9125	25550
Manganese	3.15E-02	1.12E-02	2.05E-01	7.34E-02	3.217	21.000	1.0	250	25	70	9125	25550
Mercury	3.52E-06	1.26E-06	8.22E-05	2.94E-05	0.000	0.008	1.0	250	25	70	9125	25550
Nickel	1.47E-03	5.25E-04	6.63E-03	2.37E-03	0.150	0.678	1.0	250	25	70	9125	25550
Selenium	1.33E-05	4.74E-06	2.45E-05	8.74E-06	0.001	0.003	1.0	250	25	70	9125	25550
Zinc	5.53E-03	1.97E-03	1.18E-01	4.23E-02	0.565	12.100	1.0	250	25	70	9125	25550
VOLATILES												
1,1-Dichloroethene	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
1,1,1-Trichloroethane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
1,1,2-Trichloroethane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
1,1,2,2-Tetrachloroethane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
1,2-Dichloroethane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
1,2-Dichloroethene	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
1,2-Dichloropropane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
2-Hexanone	8.52E-05	3.04E-05	9.78E-05	3.49E-05	0.0087	0.0100	1.0	250	25	70	9125	25550
Benzene	2.61E-05	9.33E-06	5.87E-05	2.10E-05	0.0027	0.0060	1.0	250	25	70	9125	25550
Bromodichloromethane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Bromoform	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Carbon Tetrachloride	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Chlorobenzene	3.04E-05	1.09E-05	1.08E-04	3.84E-05	0.0031	0.0110	1.0	250	25	70	9125	25550
Chloroform	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Chloromethane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Dibromochloromethane	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Ethylbenzene	3.05E-05	1.09E-05	1.17E-04	4.19E-05	0.0031	0.0120	1.0	250	25	70	9125	25550
Styrene	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Tetrachloroethene	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Toluene	2.18E-05	7.80E-06	4.89E-05	1.75E-05	0.0022	0.0050	1.0	250	25	70	9125	25550
Trichloroethene	2.62E-05	9.36E-06	4.89E-05	1.75E-05	0.0027	0.0050	1.0	250	25	70	9125	25550
Vinyl chloride	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Xylenes	5.92E-05	2.12E-05	1.57E-03	5.59E-04	0.0061	0.1600	1.0	250	25	70	9125	25550

TABLE A.4-3 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	WATER MEAN (mg/liter)	WATER MAX (mg/liter)	IR (liter/day)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES												
1,4-Dichlorobenzene	4.98E-05	1.78E-05	9.78E-05	3.49E-05	0.0051	0.0100	1.0	250	25	70	9125	25550
2-Methylnaphthalene	8.50E-05	2.32E-05	4.21E-04	1.50E-04	0.0066	0.0430	1.0	250	25	70	9125	25550
2,4-Dichlorophenol	4.89E-05	1.75E-05	4.89E-05	1.75E-05	0.0050	0.0050	1.0	250	25	70	9125	25550
2,4,5-Trichlorophenol	2.45E-04	8.74E-05	2.45E-04	8.74E-05	0.0250	0.0250	1.0	250	25	70	9125	25550
3,3-Dichlorobenzidine	1.05E-04	3.75E-05	1.96E-04	6.99E-05	0.0107	0.0200	1.0	250	25	70	9125	25550
Acenaphthene	6.21E-05	2.22E-05	4.40E-04	1.57E-04	0.0063	0.0450	1.0	250	25	70	9125	25550
Acenaphthylene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Anthracene	4.98E-05	1.78E-05	9.78E-05	3.49E-05	0.0051	0.0100	1.0	250	25	70	9125	25550
Benzo(a)anthracene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Benzo(a)pyrene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Benzo(b)fluoranthene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Benzo(ghi)perylene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Benzo(k)fluoranthene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Bis(2ethylhexyl)phthalate	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Butylbenzylphthalate	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Chrysene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Dibenzo(ah)anthracene	5.99E-05	2.14E-05	1.86E-04	6.64E-05	0.0061	0.0190	1.0	250	25	70	9125	25550
Dibenzofuran	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Diethylphthalate	3.82E-05	1.36E-05	9.78E-05	3.49E-05	0.0039	0.0100	1.0	250	25	70	9125	25550
Dimethylphthalate	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Di-n-butylphthalate	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Di-n-octylphthalate	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Fluoranthene	4.78E-05	1.71E-05	9.78E-05	3.49E-05	0.0049	0.0100	1.0	250	25	70	9125	25550
Fluorene	5.85E-05	2.09E-05	2.45E-04	8.74E-05	0.0060	0.0250	1.0	250	25	70	9125	25550
Indeno(123cd)pyrene	5.24E-05	1.87E-05	9.78E-05	3.49E-05	0.0054	0.0100	1.0	250	25	70	9125	25550
Naphthalene	8.19E-05	2.92E-05	2.35E-03	8.39E-04	0.0084	0.2400	1.0	250	25	70	9125	25550
Phenanthrene	5.75E-05	2.05E-05	2.05E-04	7.34E-05	0.0059	0.0210	1.0	250	25	70	9125	25550
Phenol	4.89E-05	1.75E-05	4.89E-05	1.75E-05	0.0050	0.0050	1.0	250	25	70	9125	25550
Pyrene	4.46E-05	1.59E-05	9.78E-05	3.49E-05	0.0046	0.0100	1.0	250	25	70	9125	25550
PESTICIDES												
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Alpha-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Beta-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Dieldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Delta-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Endosulfan I	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Endosulfan II	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Endosulfan Sulfate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Endrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Endrin ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Gamma-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Gamma-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Heptachlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Heptachlor epoxide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Methoxychlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Toxaphene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
PCB's												
Aroclor-1016	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aroclor-1221	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aroclor-1232	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aroclor-1242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aroclor-1248	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aroclor-1254	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aroclor-1260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550

TABLE A.4-4
SCENARIO 4
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)$^{-1}$	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	TOTAL RISK	
										1.7E-06	3.9E-03	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										7.4E-07	1.8E-03	MEAN
VOLATILES												
1,1-Dichloroethene	3.3E-09	7.9E-09	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	2.0E-09	4.7E-09			
1,1,1-Trichloroethane	3.6E-09	7.9E-09	No	NA	D		IRIS	0.0E+00	0.0E+00			
1,1,2-Trichloroethane	3.4E-09	7.9E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.9E-10	4.5E-10			
1,1,2,2-Tetrachloroethane	4.1E-09	1.0E-08	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	8.1E-10	2.1E-09			
1,2-Dichloroethane	3.3E-09	7.9E-09	No	0.09	B2	Hemangiosarcoma	Gavage/IRIS	3.0E-10	7.2E-10			
1,2-Dichloroethene	3.3E-09	7.9E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
1,2-Dichloropropane	3.5E-09	7.9E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	2.4E-10	5.3E-10			
2-Hexanone	8.0E-09	2.2E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzene	3.4E-09	7.9E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	9.9E-11	2.3E-10			
Bromodichloromethane	3.4E-09	7.9E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	4.4E-10	1.0E-09			
Bromoform	3.4E-09	7.9E-09	No	7.90E-03	B2	Ig. Intestin Neoplastic lesion	Gavage/IRIS	2.7E-11	6.2E-11			
Carbon Tetrachloride	3.4E-09	7.9E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	4.4E-10	1.0E-09			
Chlorobenzene	3.8E-09	1.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloroform	6.7E-09	1.5E-08	No	1.30E-02	C	Kidney	Inhalation/HEAST	8.7E-11	1.9E-10			
Chloromethane	3.3E-09	7.9E-09	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	2.0E-11	4.8E-11			
Dibromochloromethane	3.4E-09	7.9E-09	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	2.9E-10	6.6E-10			
Ethylbenzene	3.8E-09	1.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Styrene	4.1E-09	1.0E-08	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.2E-10	3.1E-10			
Tetrachloroethene	3.6E-09	1.0E-08	No	5.10E-02	B2	Liver	Gavage/HEAST	1.8E-10	5.3E-10			
Toluene	3.5E-09	1.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Trichloroethene	3.4E-09	7.9E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	3.7E-11	8.6E-11			
Vinyl chloride	6.7E-09	1.5E-08	No	1.90E+00	A	Lung	Diet/HEAST	1.3E-08	2.8E-08			
Xylenes	4.1E-09	1.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			

TABLE A.4-4 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL									
SEMIVOLATILES									
1,4-Dichlorobenzene	3.8E-08	3.8E-08	No	2.40E-02	C	Liver	Gavage/HEAST	9.2E-10	9.2E-10
2-Methylnaphthalene	2.3E-08	9.6E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	3.8E-08	3.8E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	1.9E-07	1.9E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	6.8E-08	1.4E-06	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	3.0E-08	6.3E-07
Acenaphthene	2.8E-08	3.3E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	3.0E-08	3.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	3.4E-08	5.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	6.1E-08	1.7E-06	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00
Benzo(a)pyrene	7.3E-08	1.4E-06	No	NA	B2	Lung, Stomach	IRIS	0.0E+00	0.0E+00
Benzo(b)fluoranthene	6.2E-08	1.3E-06	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00
Benzo(ghi)perylene	6.4E-08	7.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	7.3E-08	1.2E-06	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	3.2E-08	6.9E-07	No	1.40E-02	B2	Liver	IRIS	4.5E-10	9.7E-09
Butylbenzylphthalate	2.5E-08	6.9E-07	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00
Chrysene	7.2E-08	1.6E-06	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00
Dibenzo(ah)anthracene	2.4E-08	2.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzofuran	3.7E-08	6.9E-07	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00
Diethylphthalate	2.8E-08	3.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	3.8E-08	3.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	5.9E-07	5.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	3.7E-08	6.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	1.2E-07	4.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	2.9E-08	4.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	6.3E-08	7.6E-07	No	NA	B2	Lung, Skin	IRIS	0.0E+00	0.0E+00
Naphthalene	2.7E-08	2.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	7.4E-08	2.3E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	3.8E-08	3.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	1.1E-07	2.4E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	2.2E-09	1.7E-08	No	2.4E-01	B2	Liver tumor	Oral/IRIS	5.3E-10	4.0E-09
4,4'-DDE	1.9E-09	2.1E-09	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	6.4E-10	7.1E-10
4,4'-DDT	3.6E-09	1.6E-07	No	3.4E-01	B2	Liver tumor	Diet/IRIS	1.2E-09	5.3E-08
Aldrin	8.3E-10	8.3E-10	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	1.4E-08	1.4E-08
Alpha-BHC	8.3E-10	8.3E-10	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	5.2E-09	5.2E-09
Alpha-chlordane	8.3E-09	8.3E-09	No					0.0E+00	0.0E+00
Beta-BHC	8.3E-10	8.3E-10	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	1.5E-09	1.5E-09
Dieldrin	1.7E-09	1.7E-09	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	2.7E-08	2.7E-08
Delta-BHC	8.3E-10	8.3E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	8.3E-10	8.3E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	1.7E-09	1.7E-09	No					0.0E+00	0.0E+00
Endosulfan Sulfate	1.7E-09	1.7E-09	No					0.0E+00	0.0E+00
Endrin	1.7E-09	1.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	1.7E-09	1.7E-09	No					0.0E+00	0.0E+00
Gamma-BHC	8.3E-10	8.3E-10	No	1.3E+00	B2-C	Liver	Diet/HEAST	1.1E-09	1.1E-09
Gamma-chlordane	8.3E-09	8.3E-09	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.1E-08	1.1E-08
Heptachlor	8.3E-10	8.3E-10	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.7E-09	3.7E-09
Heptachlor epoxide	8.3E-10	8.3E-10	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	7.6E-09	7.6E-09
Methoxychlor	8.3E-09	8.3E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	1.7E-08	1.7E-08	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	1.8E-08	1.8E-08
PCB's									
Aroclor-1016	8.3E-09	8.3E-09	No	7.7E+00				6.4E-08	6.4E-08
Aroclor-1221	8.3E-09	8.3E-09	No	7.7E+00				6.4E-08	6.4E-08
Aroclor-1232	8.3E-09	8.3E-09	No	7.7E+00				6.4E-08	6.4E-08
Aroclor-1242	8.3E-09	8.3E-09	No	7.7E+00				6.4E-08	6.4E-08
Aroclor-1248	8.3E-09	8.3E-09	No	7.7E+00				6.4E-08	6.4E-08
Aroclor-1254	1.9E-08	5.3E-08	No	7.7E+00				1.5E-07	4.1E-07
Aroclor-1260	1.7E-08	1.7E-08	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	1.3E-07	1.3E-07

TABLE A.4-5
SCENARIO 4
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK	CHEMICAL SPECIFIC RISK	TOTAL PATHWAY RISK	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										2.1E-04 1.3E-05	MAXIMUM MEAN
INORGANICS											
Antimony	1.2E-06	1.6E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	9.1E-07	3.5E-06	No	1.75E+00	A	Skin	Water/IRIS	1.6E-06	6.1E-06		
Beryllium	8.2E-08	3.0E-07	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	3.5E-07	1.3E-06		
Cadmium	1.3E-07	3.8E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	3.2E-06	1.2E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	1.6E-06	3.5E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	1.5E-05	1.1E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	5.2E-06	1.0E-04	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00		
Manganese	6.7E-05	1.2E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	1.7E-08	2.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	3.8E-06	1.8E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Selenium	6.2E-08	3.5E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	4.3E-05	3.4E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	6.5E-10	1.6E-09	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	3.9E-10	9.4E-10		
1,1,1-Trichloroethane	7.2E-10	1.6E-09	No	NA	D		IRIS	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	6.6E-10	1.6E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.9E-11	9.0E-11		
1,1,2,2-Tetrachloroethane	8.1E-10	2.1E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.6E-10	4.2E-10		
1,2-Dichloroethane	6.5E-10	1.6E-09	No	0.09	B2	Hemangiosarcoma	Gavage/IRIS	5.9E-11	1.4E-10		
1,2-Dichloroethene	6.5E-10	1.6E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,2-Dichloropropane	7.0E-10	1.6E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	4.8E-11	1.1E-10		
2-Hexanone	1.6E-09	4.4E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	6.8E-10	1.6E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	2.0E-11	4.6E-11		
Bromodichloromethane	6.8E-10	1.6E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	8.9E-11	2.0E-10		
Bromoform	6.8E-10	1.6E-09	No	7.90E-03	B2	lg. Intestin Neoplastic lesion	Gavage/IRIS	5.4E-12	1.2E-11		
Carbon Tetrachloride	6.8E-10	1.6E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	8.9E-11	2.0E-10		
Chlorobenzene	7.6E-10	2.1E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloroform	1.3E-09	3.0E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.7E-11	3.9E-11		
Chloromethane	6.5E-10	1.6E-09	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	4.0E-12	9.6E-12		
Dibromochloromethane	6.8E-10	1.6E-09	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	5.7E-11	1.3E-10		
Ethylbenzene	7.6E-10	2.1E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	8.1E-10	2.1E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	2.4E-11	6.3E-11		
Tetrachloroethene	7.2E-10	2.1E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	3.7E-11	1.1E-10		
Toluene	6.9E-10	2.1E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	6.8E-10	1.6E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	7.5E-12	1.7E-11		
Vinyl chloride	1.3E-09	3.0E-09	No	1.90E+00	A	Lung	Diet/HEAST	2.5E-09	5.6E-09		
Xylenes	8.1E-10	2.1E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE A.4-5 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK	CHEMICAL SPECIFIC RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL									
SEMIVOLATILES									
1,4-Dichlorobenzene	7.7E-08	7.7E-08	No	2.40E-02	C	Liver	Gavage/HEAST	1.8E-09	1.8E-09
2-Methylnaphthalene	4.6E-08	1.9E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	7.7E-08	7.7E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	3.8E-07	3.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	1.4E-07	2.8E-06	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	6.1E-08	1.3E-06
Acenaphthene	5.6E-08	6.6E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	5.9E-08	7.7E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	6.7E-08	1.2E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	1.2E-07	3.3E-06	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	1.4E-06	3.8E-05
Benzo(a)pyrene	1.5E-07	2.8E-06	No	1.15E+01	B2	Lung, Stomach	IRIS	1.7E-06	3.2E-05
Benzo(b)fluoranthene	1.6E-07	2.6E-06	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.9E-06	3.0E-05
Benzo(ghi)perylene	1.3E-07	1.5E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	1.5E-07	2.4E-06	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.7E-06	2.8E-05
Bis(2ethylhexyl)phthalate	6.4E-08	1.4E-06	No	1.40E-02	B2	Liver	IRIS	9.0E-10	1.9E-08
Butylbenzylphthalate	4.9E-08	1.4E-06	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00
Chrysene	1.4E-07	3.1E-06	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.7E-06	3.6E-05
Dibenzo(ah)anthracene	4.8E-08	4.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzofuran	7.5E-08	1.4E-06	No	1.15E+01	B2	Lung, Mammary	IRIS	8.6E-07	1.6E-05
Diethylphthalate	5.7E-08	7.7E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	7.7E-08	7.7E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	1.2E-06	1.2E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	7.3E-08	1.4E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	2.4E-07	8.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	5.7E-08	8.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	1.3E-07	1.6E-06	No	1.15E+01	B2	Lung, Skin	IRIS	1.4E-06	1.8E-05
Naphthalene	5.4E-08	5.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	1.5E-07	4.5E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	7.7E-08	7.7E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	2.2E-07	4.7E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	1.3E-09	1.0E-08	No	2.4E-01	B2	Liver tumor	Oral/IRIS	3.2E-10	2.4E-09
4,4'-DDE	1.1E-09	1.3E-09	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	3.8E-10	4.3E-10
4,4'-DDT	2.1E-09	9.4E-08	No	3.4E-01	B2	Liver tumor	Diet/IRIS	7.3E-10	3.2E-08
Aldrin	5.0E-10	5.0E-10	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	8.5E-09	8.5E-09
Alpha-BHC	5.0E-10	5.0E-10	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.1E-09	3.1E-09
Alpha-chlordane	5.0E-09	5.0E-09	No	NA				0.0E+00	0.0E+00
Beta-BHC	5.0E-10	5.0E-10	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	9.0E-10	9.0E-10
Dieldrin	1.0E-09	1.0E-09	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	1.6E-08	1.6E-08
Delta-BHC	5.0E-10	5.0E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	5.0E-10	5.0E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	1.0E-09	1.0E-09	No	NA				0.0E+00	0.0E+00
Endosulfan Sulfate	1.0E-09	1.0E-09	No	NA				0.0E+00	0.0E+00
Endrin	1.0E-09	1.0E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	1.0E-09	1.0E-09	No	NA				0.0E+00	0.0E+00
Gamma-BHC	5.0E-10	5.0E-10	No	1.3E+00	B2-C	Liver	Diet/HEAST	6.5E-10	6.5E-10
Gamma-chlordane	5.0E-09	5.0E-09	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	6.5E-09	6.5E-09
Heptachlor	5.0E-10	5.0E-10	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.2E-09	2.2E-09
Heptachlor epoxide	5.0E-10	5.0E-10	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	4.5E-09	4.5E-09
Methoxychlor	5.0E-09	5.0E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	1.0E-08	1.0E-08	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	1.1E-08	1.1E-08
PCB's									
Aroclor-1016	5.0E-09	5.0E-09	No	7.7E+00				3.8E-08	3.8E-08
Aroclor-1221	5.0E-09	5.0E-09	No	7.7E+00				3.8E-08	3.8E-08
Aroclor-1232	5.0E-09	5.0E-09	No	7.7E+00				3.8E-08	3.8E-08
Aroclor-1242	5.0E-09	5.0E-09	No	7.7E+00				3.8E-08	3.8E-08
Aroclor-1248	5.0E-09	5.0E-09	No	7.7E+00				3.8E-08	3.8E-08
Aroclor-1254	1.2E-08	3.2E-08	No	7.7E+00				8.9E-08	2.5E-07
Aroclor-1260	1.0E-08	1.0E-08	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	7.7E-08	7.7E-08

TABLE A.4-6
SCENARIO 4
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK	CHEMICAL SPECIFIC RISK	TOTAL PATHWAY RISK	
										3.7E-03	MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER										1.8E-03	MEAN
INORGANICS											
Antimony	1.3E-04	9.1E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	1.0E-04	3.1E-04	No	1.75E+00	A	Skin	Water/IRIS	1.7E-04	5.5E-04		
Beryllium	7.8E-06	4.5E-05	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	3.4E-05	1.9E-04		
Cadmium	1.8E-05	2.0E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	1.1E-04	8.7E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	2.0E-04	2.6E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	5.0E-04	1.1E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	2.8E-04	1.7E-02	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00		
Manganese	1.1E-02	7.3E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	1.3E-06	2.9E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	5.2E-04	2.4E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Selenium	4.7E-06	8.7E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	2.0E-03	4.2E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	9.4E-06	1.7E-05	No	0.60	C	Adrenal pheochromocytomas	Oral/IRIS	5.6E-06	1.0E-05		
1,1,1-Trichloroethane	9.4E-06	1.7E-05	No	NA	D		IRIS	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	9.4E-06	1.7E-05	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	5.3E-07	1.0E-06		
1,1,2,2-Tetrachloroethane	9.4E-06	1.7E-05	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.9E-06	3.5E-06		
1,2-Dichloroethane	9.4E-06	1.7E-05	No	0.09	B2	Hemanglosarcoma	Gavage/IRIS	8.5E-07	1.6E-06		
1,2-Dichloroethene	9.4E-06	1.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,2-Dichloropropane	9.4E-06	1.7E-05	No	6.80E-02	B2	Liver	Gavage/HEAST	6.4E-07	1.2E-06		
2-Hexanone	3.0E-05	3.5E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	9.3E-06	2.1E-05	No	2.90E-02	A	Leukemia	Occupational/IRIS	2.7E-07	6.1E-07		
Bromodichloromethane	9.4E-06	1.7E-05	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	1.2E-06	2.3E-06		
Bromoform	9.4E-06	1.7E-05	No	7.90E-03	B2	Ig. Intestin Neoplastic lesion	Gavage/IRIS	7.4E-08	1.4E-07		
Carbon Tetrachloride	9.4E-06	1.7E-05	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	1.2E-06	2.3E-06		
Chlorobenzene	1.1E-05	3.8E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloroform	1.9E-05	3.5E-05	No	1.30E-02	C	Kidney	Inhalation/HEAST	2.4E-07	4.5E-07		
Chloromethane	9.4E-06	1.7E-05	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	5.7E-08	1.1E-07		
Dibromochloromethane	9.4E-06	1.7E-05	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	7.9E-07	1.5E-06		
Ethylbenzene	1.1E-05	4.2E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	9.4E-06	1.7E-05	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	2.8E-07	5.2E-07		
Tetrachloroethene	9.4E-06	1.7E-05	No	5.10E-02	B2	Liver	Gavage/HEAST	4.8E-07	8.9E-07		
Toluene	7.8E-06	1.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	9.4E-06	1.7E-05	No	1.10E-02	B2	Liver	Gavage/HEAST	1.0E-07	1.9E-07		
Vinyl chloride	1.9E-05	3.5E-05	No	1.90E+00	A	Lung	Diet/HEAST	3.6E-05	6.6E-05		
Xylenes	2.1E-05	5.6E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE A.4-6 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK	CHEMICAL SPECIFIC RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER									
SEMIVOLATILES									
1,4-Dichlorobenzene	1.8E-05	3.5E-05	No	2.40E-02	C	Liver	Gavage/HEAST	4.3E-07	8.4E-07
2-Methylnaphthalene	2.3E-05	1.5E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dichlorophenol	1.7E-05	1.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	8.7E-05	8.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	3.7E-05	7.0E-05	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.7E-05	3.1E-05
Acenaphthene	2.2E-05	1.6E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	1.9E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	1.8E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	1.9E-05	3.5E-05	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	2.2E-04	4.0E-04
Benzo(a)pyrene	1.9E-05	3.5E-05	No	1.15E+01	B2	Lung, Stomach	IRIS	2.2E-04	4.0E-04
Benzo(b)fluoranthene	1.9E-05	3.5E-05	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	2.2E-04	4.0E-04
Benzo(ghi)perylene	1.9E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	1.9E-05	3.5E-05	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	2.2E-04	4.0E-04
Bis(2ethylhexyl)phthalate	1.9E-05	3.5E-05	No	1.40E-02	B2	Liver	IRIS	2.6E-07	4.9E-07
Butylbenzylphthalate	1.9E-05	3.5E-05	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00
Chrysene	1.9E-05	3.5E-05	No	1.15E+01	B2	Malignant lymphoma	IRIS	2.2E-04	4.0E-04
Dibenzo(ah)anthracene	2.1E-05	6.6E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dibenzofuran	1.9E-05	3.5E-05	No	1.15E+01	B2	Lung, Mammary	IRIS	2.2E-04	4.0E-04
Diethylphthalate	1.4E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Dimethylphthalate	1.9E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-butylphthalate	1.9E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Di-n-octylphthalate	1.9E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluoranthene	1.7E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	2.1E-05	8.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	1.9E-05	3.5E-05	No	1.15E+01	B2	Lung, Skin	IRIS	2.2E-04	4.0E-04
Naphthalene	2.9E-05	8.4E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	2.1E-05	7.3E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenol	1.7E-05	1.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	1.8E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	0.0E+00	0.0E+00	No	2.4E-01	B2	Liver tumor	Oral/IRIS	0.0E+00	0.0E+00
4,4'-DDE	0.0E+00	0.0E+00	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00
4,4'-DDT	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00
Aldrin	0.0E+00	0.0E+00	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	0.0E+00	0.0E+00
Alpha-BHC	0.0E+00	0.0E+00	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00
Alpha-chlordane	0.0E+00	0.0E+00	No	NA				0.0E+00	0.0E+00
Beta-BHC	0.0E+00	0.0E+00	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	0.0E+00	0.0E+00
Dieldrin	0.0E+00	0.0E+00	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	0.0E+00	0.0E+00
Delta-BHC	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan I	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Endosulfan II	0.0E+00	0.0E+00	No	NA				0.0E+00	0.0E+00
Endosulfan Sulfate	0.0E+00	0.0E+00	No	NA				0.0E+00	0.0E+00
Endrin	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Endrin ketone	0.0E+00	0.0E+00	No	NA				0.0E+00	0.0E+00
Gamma-BHC	0.0E+00	0.0E+00	No	1.3E+00	B2-C	Liver	Diet/HEAST	0.0E+00	0.0E+00
Gamma-chlordane	0.0E+00	0.0E+00	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00
Heptachlor	0.0E+00	0.0E+00	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00
Heptachlor epoxide	0.0E+00	0.0E+00	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00
Methoxychlor	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Toxaphene	0.0E+00	0.0E+00	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodules	Diet/IRIS	0.0E+00	0.0E+00
PCB's									
Aroclor-1016	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00
Aroclor-1221	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00
Aroclor-1232	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00
Aroclor-1242	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00
Aroclor-1248	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00
Aroclor-1254	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00
Aroclor-1260	0.0E+00	0.0E+00	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	0.0E+00	0.0E+00

TABLE A.4-7
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)	
												1.2E-02	1.3E+01	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												1.9E-03	2.0E+00	MEAN
VOLATILES														
1,1-Dichloroethene	9.1E-09	2.2E-08	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	1.0E-06	2.4E-06			
1,1,1-Trichloroethane	1.0E-08	2.2E-08	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	1.1E-07	2.4E-07			
1,1,2-Trichloroethane	9.6E-09	2.2E-08	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	2.4E-06	5.5E-06			
1,1,2,2-Tetrachloroethane	1.1E-08	2.9E-08	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethane	9.1E-09	2.2E-08	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethene	9.1E-09	2.2E-08	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		9.1E-07	2.2E-06			
1,2-Dichloropropane	9.8E-09	2.2E-08	No	NA			NA/HEAST			NA	NA			
2-Hexanone	2.2E-08	6.1E-08	No	NA			NA/IRIS,HEAST			NA	NA			
Benzene	9.5E-09	2.2E-08	No	NA			NA/IRIS,HEAST			NA	NA			
Bromodichloromethane	9.5E-09	2.2E-08	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	4.8E-07	1.1E-06			
Bromoform	9.5E-09	2.2E-08	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	4.8E-07	1.1E-06			
Carbon Tetrachloride	9.6E-09	2.2E-08	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	1.4E-05	3.1E-05			
Chlorobenzene	1.1E-08	2.9E-08	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		5.3E-07	1.5E-06			
Chloroform	1.9E-08	4.2E-08	No	NA			NA/IRIS,HEAST			NA	NA			
Chloromethane	9.1E-09	2.2E-08	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	9.1E-07	2.2E-06			
Dibromochloromethane	9.5E-09	2.2E-08	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	4.8E-07	1.1E-06			
Ethylbenzene	1.1E-08	2.9E-08	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	1.1E-07	2.9E-07			
Styrene	1.1E-08	2.9E-08	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	5.7E-08	1.5E-07			
Tetrachloroethene	1.0E-08	2.9E-08	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	1.0E-06	2.9E-06			
Toluene	9.7E-09	2.9E-08	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	4.9E-08	1.5E-07			
Trichloroethene	9.5E-09	2.2E-08	No	NA			NA/IRIS,HEAST			NA	NA			
Vinyl chloride	1.9E-08	4.2E-08	No	NA			NA/IRIS,HEAST			NA	NA			
Xylenes	1.1E-08	2.9E-08	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	5.7E-09	1.5E-08			

TABLE A.4-7 (cont)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MCALUSTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL											
SEMIVOLATILES											
1,4-Dichlorobenzene	1.1E-07	1.1E-07	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	6.5E-08	2.7E-07	No	4E-03			NA/IRIS,HEAST			1.6E-05	6.7E-05
2,4-Dichlorophenol	1.1E-07	1.1E-07	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	3.6E-05	3.6E-05
2,4,5-Trichlorophenol	5.4E-07	5.4E-07	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	5.4E-06	5.4E-06
3,3-Dichlorobenzidine	1.9E-07	3.9E-06	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	7.8E-08	9.3E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	1.3E-06	1.5E-05
Acenaphthylene	8.3E-08	1.1E-07	No	4E-03			NA/IRIS,HEAST			2.1E-05	2.7E-05
Anthracene	9.4E-08	1.7E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	3.1E-07	5.5E-06
Benzo(a)anthracene	1.7E-07	4.6E-06	No	4E-03			NA/IRIS,HEAST			4.3E-05	1.2E-03
Benzo(a)pyrene	2.0E-07	3.9E-06	No	4E-03			NA/IRIS,HEAST			5.1E-05	9.8E-04
Benzo(b)fluoranthene	2.3E-07	3.7E-06	No	4E-03			NA/IRIS,HEAST			5.8E-05	9.2E-04
Benzo(ghi)perylene	1.8E-07	2.1E-06	No	4E-03			NA/IRIS,HEAST			4.5E-05	5.1E-04
Benzo(k)fluoranthene	2.1E-07	3.4E-06	No	4E-03			NA/IRIS,HEAST			5.1E-05	8.6E-04
Bis(2ethylhexyl)phthalate	9.0E-08	1.9E-06	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	4.5E-06	9.7E-05
Butylbenzylphthalate	6.9E-08	1.9E-06	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	3.4E-07	9.7E-06
Chrysene	2.0E-07	4.4E-06	No	4E-03			NA/HEAST			5.0E-05	1.1E-03
Dibenzo(ah)anthracene	6.7E-08	6.8E-07	No	4E-03			NA/HEAST	1000		1.7E-05	1.7E-04
Dibenzofuran	1.0E-07	1.9E-06	No	4E-03			NA/IRIS,HEAST			2.6E-05	4.8E-04
Diethylphthalate	7.9E-08	1.1E-07	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	9.9E-08	1.3E-07
Dimethylphthalate	1.1E-07	1.1E-07	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		1.1E-07	1.1E-07
Di-n-butylphthalate	1.6E-08	1.6E-08	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	1.6E-05	1.6E-05
Di-n-octylphthalate	1.0E-07	1.9E-06	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		5.1E-06	9.7E-05
Fluoranthene	3.4E-07	1.1E-05	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	8.5E-06	2.8E-04
Fluorene	8.0E-08	1.1E-06	No	4E-02	Low	Decreased RBC, packed cell vol and hemoglobin	Gavage/IRIS	3000	1	2.0E-06	2.9E-05
Indeno(123cd)pyrene	1.8E-07	2.2E-06	No	4E-03			NA/IRIS,HEAST			4.4E-05	5.4E-04
Naphthalene	7.6E-08	7.3E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.9E-05	1.8E-04
Phenanthrene	2.1E-07	6.4E-06	No	4E-03			NA/HEAST			5.2E-05	1.6E-03
Phenol	1.1E-07	1.1E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	1.8E-07	1.8E-07
Pyrene	3.1E-07	6.6E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.0E-05	2.2E-04
PESTICIDES											
4,4'-DDD	6.2E-09	4.6E-08	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	5.2E-09	5.9E-09	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	1.0E-08	4.4E-07	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	2.0E-05	8.8E-04
Aldrin	2.3E-09	2.3E-09	No	3.0E-05	Medium	Liver toxicity	Diet/IRIS	1000	1	7.7E-05	7.7E-05
Alpha-BHC	2.3E-09	2.3E-09	No	NA			NA/IRIS,HEAST			NA	NA
Alpha-chlordane	2.3E-08	2.3E-08	No	6.0E-05			Diet/IRIS			3.9E-04	3.9E-04
Beta-BHC	2.3E-09	2.3E-09	No	NA			NA/IRIS,HEAST			NA	NA
Dieldrin	4.6E-09	4.6E-09	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	9.3E-05	9.3E-05
Delta-BHC	2.3E-09	2.3E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endosulfan I	2.3E-09	2.3E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	4.6E-05	4.6E-05
Endosulfan II	4.6E-09	4.6E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	9.3E-05	9.3E-05
Endosulfan Sulfate	4.6E-09	4.6E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endrin	4.6E-09	4.6E-09	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	1.5E-05	1.5E-05
Endrin ketone	4.6E-09	4.6E-09	No	NA			NA/IRIS,HEAST			NA	NA
Gamma-BHC	2.3E-09	2.3E-09	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	7.7E-06	7.7E-06
Gamma-chlordane	2.3E-08	2.3E-08	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	3.9E-04	3.9E-04
Heptachlor	2.3E-09	2.3E-09	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	4.6E-06	4.6E-06
Heptachlor epoxide	2.3E-09	2.3E-09	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	1.8E-04	1.8E-04
Methoxychlor	2.3E-08	2.3E-08	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	4.6E-06	4.6E-06
Toxaphene	4.6E-08	4.6E-08	No	NA			NA/IRIS,HEAST			NA	NA
PCB's											
Aroclor-1016	2.3E-08	2.3E-08	No							NA	NA
Aroclor-1221	2.3E-08	2.3E-08	No							NA	NA
Aroclor-1232	2.3E-08	2.3E-08	No							NA	NA
Aroclor-1242	2.3E-08	2.3E-08	No							NA	NA
Aroclor-1248	2.3E-08	2.3E-08	No							NA	NA
Aroclor-1254	5.4E-08	1.5E-07	No							NA	NA
Aroclor-1260	4.6E-08	4.6E-08	No	NA			NA/IRIS,HEAST			NA	NA

TABLE A.4-8
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

CHEMICAL	C	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	TOTAL PATHWAY RISK	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL													2.9E-01	MAXIMUM
													1.9E-02	MEAN
INORGANICS														
Antimony		3.3E-06	4.5E-05	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	8.4E-03	1.1E-01		
Arsenic		2.5E-08	9.8E-08	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		2.5E-03	9.8E-03		
Beryllium		2.3E-07	8.3E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	4.6E-05	1.7E-04		
Cadmium		3.6E-07	1.1E-05	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	3.6E-04	1.1E-02		
Chromium		9.0E-06	3.4E-05	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	1.8E-03	6.8E-03		
Cobalt		4.6E-06	9.9E-06	No	NA			NA/IRIS,HEAST			NA	NA		
Copper		4.2E-05	3.0E-03	No	4E-02		Local GI irritation	HEAST			1.0E-03	7.4E-02		
Lead		1.5E-05	2.9E-04	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA		
Manganese		1.9E-04	3.3E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	1.9E-03	3.3E-03		
Mercury		4.9E-08	7.8E-07	No	3E-04		Kidney effects	Oral/HEAST	1000		1.6E-04	2.6E-03		
Nickel		1.1E-05	5.1E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Selenium		1.7E-07	9.8E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	3.5E-05	2.0E-04		
Zinc		1.2E-04	9.4E-03	No	2E-01		Anemia	Therapeutic/HEAST	10		6.0E-04	4.7E-02		
VOLATILES														
1,1-Dichloroethene		1.8E-09	4.4E-09	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	2.0E-07	4.9E-07		
1,1,1-Trichloroethane		2.0E-09	4.4E-09	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	2.2E-08	4.9E-08		
1,1,2-Trichloroethane		1.9E-09	4.4E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	4.8E-07	1.1E-06		
1,1,2,2-Tetrachloroethane		2.3E-09	5.9E-09	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethane		1.8E-09	4.4E-09	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethene		1.8E-09	4.4E-09	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		1.8E-07	4.4E-07		
1,2-Dichloropropane		2.0E-09	4.4E-09	No	NA			NA/HEAST			NA	NA		
2-Hexanone		4.5E-09	1.2E-08	No	NA			NA/IRIS,HEAST			NA	NA		
Benzene		1.9E-09	4.4E-09	No	NA			NA/IRIS,HEAST			NA			
Bromodichloromethane		1.9E-09	4.4E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	9.5E-08	2.2E-07		
Bromoform		1.9E-09	4.4E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	9.5E-08	2.2E-07		
Carbon Tetrachloride		1.9E-09	4.4E-09	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	2.7E-06	6.3E-06		
Chlorobenzene		2.1E-09	5.9E-09	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		1.1E-07	2.9E-07		
Chloroform		3.7E-09	8.3E-09	No	NA			NA/IRIS,HEAST			NA	NA		
Chloromethane		1.8E-09	4.4E-09	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	1.8E-07	4.4E-07		
Dibromochloromethane		1.9E-09	4.4E-09	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	9.5E-08	2.2E-07		
Ethylbenzene		2.1E-09	5.9E-09	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	2.1E-08	5.9E-08		
Styrene		2.3E-09	5.9E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	1.1E-08	2.9E-08		
Tetrachloroethene		2.0E-09	5.9E-09	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	2.0E-07	5.9E-07		
Toluene		1.9E-09	5.9E-09	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	9.7E-09	2.9E-08		
Trichloroethene		1.9E-09	4.4E-09	No	NA			NA/IRIS,HEAST			NA	NA		
Vinyl chloride		3.7E-09	8.3E-09	No	NA			NA/IRIS,HEAST			NA	NA		
Xylenes		2.3E-09	5.9E-09	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	1.1E-09	2.9E-09		

TABLE A.4-8 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

CHEMICAL	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											
SEMIVOLATILES											
1,4-Dichlorobenzene	2.2E-07	2.2E-07	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	1.3E-07	5.4E-07	No	4E-03			NA/IRIS,HEAST			3.2E-05	1.3E-04
2,4-Dichlorophenol	2.2E-07	2.2E-07	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	7.2E-05	7.2E-05
2,4,5-Trichlorophenol	1.1E-06	1.1E-06	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	1.1E-05	1.1E-05
3,3-Dichlorobenzidine	3.8E-07	7.8E-06	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	1.6E-07	1.9E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	2.6E-06	3.1E-05
Acenaphthylene	1.7E-07	2.2E-07	No	4E-03			NA/IRIS,HEAST			4.2E-05	5.4E-05
Anthracene	1.9E-07	3.3E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	6.3E-07	1.1E-05
Benzo(a)anthracene	3.4E-07	9.3E-06	No	4E-03			NA/IRIS,HEAST			8.5E-05	2.3E-03
Benzo(a)pyrene	4.1E-07	7.8E-06	No	4E-03			NA/IRIS,HEAST			1.0E-04	2.0E-03
Benzo(b)fluoranthene	4.6E-07	7.3E-06	No	4E-03			NA/IRIS,HEAST			1.2E-04	1.8E-03
Benzo(ghi)perylene	3.6E-07	4.1E-06	No	4E-03			NA/IRIS,HEAST			9.0E-05	1.0E-03
Benzo(k)fluoranthene	4.1E-07	6.8E-06	No	4E-03			NA/IRIS,HEAST			1.0E-04	1.7E-03
Bis(2ethylhexyl)phthalate	1.8E-07	3.9E-06	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	9.0E-06	1.9E-04
Butylbenzylphthalate	1.4E-07	3.9E-06	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	6.9E-07	1.9E-05
Chrysene	4.0E-07	8.8E-06	No	4E-03			NA/HEAST			1.0E-04	2.2E-03
Dibenzo(ah)anthracene	1.3E-07	1.4E-06	No	4E-03			NA/HEAST			3.4E-05	3.4E-04
Dibenzofuran	2.1E-07	3.9E-06	No	4E-03			NA/IRIS,HEAST			5.2E-05	9.7E-04
Diethylphthalate	1.6E-07	2.2E-07	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	2.0E-07	2.7E-07
Dimethylphthalate	2.2E-07	2.2E-07	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		2.2E-07	2.2E-07
Di-n-butylphthalate	3.3E-06	3.3E-06	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	3.3E-05	3.3E-05
Di-n-octylphthalate	2.1E-07	3.9E-06	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		1.0E-05	1.9E-04
Fluoranthene	6.8E-07	2.3E-05	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	1.7E-05	5.6E-04
Fluorene	1.6E-07	2.3E-06	No	4E-02	Low	Decreased RBC, packed cell vol and hemoglobin	Gavage/IRIS	3000	1	4.0E-06	5.7E-05
Indeno(123cd)pyrene	3.5E-07	4.4E-06	No	4E-03			NA/IRIS,HEAST			8.6E-05	1.1E-03
Naphthalene	1.5E-07	1.5E-06	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		3.8E-05	3.7E-04
Phenanthrene	4.2E-07	1.3E-05	No	4E-03			NA/HEAST			1.0E-04	3.2E-03
Phenol	2.2E-07	2.2E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	3.6E-07	3.6E-07
Pyrene	6.2E-07	1.3E-05	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	2.1E-05	4.4E-04
PESTICIDES											
4,4'-DDD	3.7E-09	2.8E-08	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	3.1E-09	3.5E-09	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	6.0E-09	2.6E-07	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.2E-05	5.3E-04
Aldrin	1.4E-09	1.4E-09	No	3.0E-05	Medium	Liver toxicty	Diet/IRIS	1000	1	4.6E-05	4.6E-05
Alpha-BHC	1.4E-09	1.4E-09	No	NA			NA/IRIS,HEAST			NA	NA
Alpha-chlordane	1.4E-08	1.4E-08	No	6.0E-05			Diet/IRIS			2.3E-04	2.3E-04
Beta-BHC	1.4E-09	1.4E-09	No	NA			NA/IRIS,HEAST				
Dieldrin	2.8E-09	2.8E-09	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	5.6E-05	5.6E-05
Delta-BHC	1.4E-09	1.4E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endosulfan I	1.4E-09	1.4E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	2.8E-05	2.8E-05
Endosulfan II	2.8E-09	2.8E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	5.6E-05	5.6E-05
Endosulfan Sulfate	2.8E-09	2.8E-09	No	NA			NA/IRIS,HEAST			NA	NA
Endrin	2.8E-09	2.8E-09	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	9.3E-06	9.3E-06
Endrin ketone	2.8E-09	2.8E-09	No	NA			NA/IRIS,HEAST			NA	NA
Gamma-BHC	1.4E-09	1.4E-09	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	4.6E-06	4.6E-06
Gamma-chlordane	1.4E-08	1.4E-08	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	2.3E-04	2.3E-04
Heptachlor	1.4E-09	1.4E-09	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	2.8E-06	2.8E-06
Heptachlor epoxide	1.4E-09	1.4E-09	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	1.1E-04	1.1E-04
Methoxychlor	1.4E-08	1.4E-08	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	2.8E-06	2.8E-06
Toxaphene	2.8E-08	2.8E-08	No	NA			NA/IRIS,HEAST			NA	NA
PCB's											
Aroclor-1016	1.4E-08	1.4E-08	No							NA	NA
Aroclor-1221	1.4E-08	1.4E-08	No							NA	NA
Aroclor-1232	1.4E-08	1.4E-08	No							NA	NA
Aroclor-1242	1.4E-08	1.4E-08	No							NA	NA
Aroclor-1248	1.4E-08	1.4E-08	No							NA	NA
Aroclor-1254	3.2E-08	9.0E-08	No							NA	NA
Aroclor-1260	2.8E-08	2.8E-08	No	NA			NA/IRIS,HEAST			NA	NA

TABLE A.4-9
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	TOTAL PATHWAY RISK	
												1.3E+01	MAXIMUM
												2.0E+00	MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER													
INORGANICS													
Antimony	3.6E-04	2.5E-03	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	9.0E-01	6.3E+00		
Arsenic	2.8E-04	8.7E-04	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		2.8E-01	8.7E-01		
Beryllium	2.2E-05	1.3E-04	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	4.4E-03	2.5E-02		
Cadmium	5.0E-05	5.6E-04	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	5.0E-02	5.6E-01		
Chromium	3.0E-04	2.4E-03	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	6.0E-02	4.9E-01		
Cobalt	5.7E-04	7.2E-03	No	NA			NA/IRIS,HEAST			NA	NA		
Copper	1.4E-03	3.1E-02	No	4E-02		Local GI irritation	HEAST			3.5E-02	7.7E-01		
Lead	7.9E-04	4.7E-02	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA		
Manganese	3.1E-02	2.1E-01	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	3.1E-01	2.1E+00		
Mercury	3.5E-06	8.2E-05	No	3E-04		Kidney effects	Oral/HEAST	1000		1.2E-02	2.7E-01		
Nickel	1.5E-03	6.6E-03	No	NA			NA/IRIS,HEAST			NA	NA		
Selenium	1.3E-05	2.4E-05	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	2.7E-03	4.9E-03		
Zinc	5.5E-03	1.2E-01	No	2E-01		Anemia	Therapeutic/HEAST	10		2.8E-02	5.9E-01		
VOLATILES													
1,1-Dichloroethene	2.6E-05	4.9E-05	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	2.9E-03	5.4E-03		
1,1,1-Trichloroethane	2.6E-05	4.9E-05	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	2.9E-04	5.4E-04		
1,1,2-Trichloroethane	2.6E-05	4.9E-05	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	6.6E-03	1.2E-02		
1,1,2,2-Tetrachloroethane	2.6E-05	4.9E-05	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethane	2.6E-05	4.9E-05	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethene	2.6E-05	4.9E-05	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		2.6E-03	4.9E-03		
1,2-Dichloropropane	2.6E-05	4.9E-05	No	NA			NA/HEAST			NA	NA		
2-Hexanone	8.5E-05	9.8E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Benzene	2.6E-05	5.9E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Bromodichloromethane	2.6E-05	4.9E-05	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	1.3E-03	2.4E-03		
Bromoform	2.6E-05	4.9E-05	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	1.3E-03	2.4E-03		
Carbon Tetrachloride	2.6E-05	4.9E-05	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	3.7E-02	7.0E-02		
Chlorobenzene	3.0E-05	1.1E-04	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		1.5E-03	5.4E-03		
Chloroform	5.2E-05	9.8E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Chloromethane	2.6E-05	4.9E-05	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	2.6E-03	4.9E-03		
Dibromochloromethane	2.6E-05	4.9E-05	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	1.3E-03	2.4E-03		
Ethylbenzene	3.1E-05	1.2E-04	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	3.1E-04	1.2E-03		
Styrene	2.6E-05	4.9E-05	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	1.3E-04	2.4E-04		
Tetrachloroethene	2.6E-05	4.9E-05	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	2.6E-03	4.9E-03		
Toluene	2.2E-05	4.9E-05	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	1.1E-04	2.4E-04		
Trichloroethene	2.6E-05	4.9E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Vinyl chloride	5.2E-05	9.8E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Xylenes	5.9E-05	1.6E-03	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	3.0E-05	7.8E-04		

TABLE A.4-9 (cont)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER											
SEMIVOLATILES											
1,4-Dichlorobenzene	5.0E-05	9.8E-05	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	6.5E-05	4.2E-04	No	4E-03			NA/IRIS,HEAST			1.6E-02	1.1E-01
2,4-Dichlorophenol	4.9E-05	4.9E-05	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	1.6E-02	1.6E-02
2,4,5-Trichlorophenol	2.4E-04	2.4E-04	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	2.4E-03	2.4E-03
3,3-Dichlorobenzidine	1.0E-04	2.0E-04	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	6.2E-05	4.4E-04	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	1.0E-03	7.3E-03
Acenaphthylene	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Anthracene	5.0E-05	9.8E-05	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	1.7E-04	3.3E-04
Benzo(a)anthracene	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Benzo(a)pyrene	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Benzo(b)fluoranthene	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Benzo(ghi)perylene	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Benzo(k)fluoranthene	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Bis(2ethylhexyl)phthalate	5.2E-05	9.8E-05	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.6E-03	4.9E-03
Butylbenzylphthalate	5.2E-05	9.8E-05	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	2.6E-04	4.9E-04
Chrysene	5.2E-05	9.8E-05	No	4E-03			NA/HEAST			1.3E-02	2.4E-02
Dibenzo(ah)anthracene	6.0E-05	1.9E-04	No	4E-03			NA/HEAST	1000		1.5E-02	4.6E-02
Dibenzofuran	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Diethylphthalate	3.8E-05	9.8E-05	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	4.8E-05	1.2E-04
Dimethylphthalate	5.2E-05	9.8E-05	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		5.2E-05	9.8E-05
Di-n-butylphthalate	5.2E-05	9.8E-05	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	5.2E-04	9.8E-04
Di-n-octylphthalate	5.2E-05	9.8E-05	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		2.6E-03	4.9E-03
Fluoranthene	4.8E-05	9.8E-05	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	1.2E-03	2.4E-03
Fluorene	5.9E-05	2.4E-04	No	4E-02	Low	Decreased RBC, packed cell vol and hemoglobin	Gavage/IRIS	3000	1	1.5E-03	6.1E-03
Indeno(123cd)pyrene	5.2E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.3E-02	2.4E-02
Naphthalene	8.2E-05	2.3E-03	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		2.0E-02	5.9E-01
Phenanthrene	5.8E-05	2.1E-04	No	4E-03			NA/HEAST			1.4E-02	5.1E-02
Phenol	4.9E-05	4.9E-05	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	8.2E-05	8.2E-05
Pyrene	4.5E-05	9.8E-05	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.5E-03	3.3E-03
PESTICIDES											
4,4'-DDD	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	0.0E+00	0.0E+00	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00
Aldrin	0.0E+00	0.0E+00	No	3.0E-05	Medium	Liver toxicity	Diet/IRIS	1000	1	0.0E+00	0.0E+00
Alpha-BHC	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	No	6.0E-05			Diet/IRIS			0.0E+00	0.0E+00
Beta-BHC	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Dieldrin	0.0E+00	0.0E+00	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00
Delta-BHC	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Endosulfan I	0.0E+00	0.0E+00	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	0.0E+00	0.0E+00
Endosulfan II	0.0E+00	0.0E+00	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	0.0E+00	0.0E+00
Endosulfan Sulfate	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Endrin	0.0E+00	0.0E+00	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	0.0E+00	0.0E+00
Endrin ketone	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Gamma-BHC	0.0E+00	0.0E+00	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	0.0E+00	0.0E+00
Gamma-chlordane	0.0E+00	0.0E+00	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	0.0E+00	0.0E+00
Heptachlor	0.0E+00	0.0E+00	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	0.0E+00	0.0E+00
Heptachlor epoxide	0.0E+00	0.0E+00	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	0.0E+00	0.0E+00
Methoxychlor	0.0E+00	0.0E+00	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	0.0E+00	0.0E+00
Toxaphene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
PCB's											
Aroclor-1016	0.0E+00	0.0E+00	No	NA						NA	NA
Aroclor-1221	0.0E+00	0.0E+00	No	NA						NA	NA
Aroclor-1232	0.0E+00	0.0E+00	No	NA						NA	NA
Aroclor-1242	0.0E+00	0.0E+00	No	NA						NA	NA
Aroclor-1248	0.0E+00	0.0E+00	No	NA						NA	NA
Aroclor-1254	0.0E+00	0.0E+00	No	NA						NA	NA
Aroclor-1260	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA

TABLE A.5-1
SCENARIO 5
INGESTION OF CHEMICALS IN DRINKING WATER
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX (mg/liter)	IR CHILD (liter/day)	IR ADULT (liter/day)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																				
Antimony	1.62E-03	1.01E-03	1.28E-02	7.10E-03	1.56E-04	4.32E-04	1.10E-03	3.04E-03	0.037	0.259	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arsenic	1.42E-03	7.84E-04	4.43E-03	2.45E-03	1.22E-04	3.36E-04	3.80E-04	1.05E-03	0.029	0.089	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Beryllium	1.11E-04	6.14E-05	6.35E-04	3.51E-04	9.52E-06	2.63E-05	5.44E-05	1.50E-04	0.002	0.013	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Cadmium	2.52E-04	1.39E-04	2.83E-03	1.56E-03	2.16E-05	5.96E-05	2.43E-04	6.70E-04	0.005	0.057	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chromium	1.51E-03	8.34E-04	1.23E-02	6.79E-03	1.29E-04	3.58E-04	1.05E-03	2.91E-03	0.030	0.248	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Cobalt	2.89E-03	1.60E-03	3.66E-02	2.02E-02	2.48E-04	6.85E-04	3.13E-03	8.65E-03	0.058	0.737	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Copper	7.17E-03	3.96E-03	1.57E-01	8.66E-02	6.14E-04	1.70E-03	1.34E-02	3.71E-02	0.145	3.160	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Lead	4.00E-03	2.21E-03	2.38E-01	1.32E-01	3.43E-04	9.48E-04	2.04E-02	5.64E-02	0.081	4.800	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Manganese	1.60E-01	8.81E-02	1.04E+00	5.75E-01	1.37E-02	3.78E-02	8.93E-02	2.47E-01	3.217	21.000	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Mercury	1.78E-05	9.84E-06	4.17E-04	2.30E-04	1.53E-06	4.22E-06	3.57E-05	9.86E-05	0.000	0.008	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Nickel	7.45E-03	4.11E-03	3.36E-02	1.86E-02	6.38E-04	1.76E-03	2.88E-03	7.96E-03	0.150	0.678	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Selenium	6.73E-05	3.72E-05	1.24E-04	6.85E-05	5.77E-06	1.59E-05	1.06E-05	2.94E-05	0.001	0.003	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Zinc	2.80E-02	1.55E-02	6.00E-01	3.32E-01	2.40E-03	6.63E-03	5.14E-02	1.42E-01	0.565	12.100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
VOLATILES																				
1,1-Dichloroethene	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethene	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
2-Hexanone	4.32E-04	2.39E-04	4.96E-04	2.74E-04	3.70E-05	1.02E-04	4.25E-05	1.17E-04	0.0087	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzene	1.32E-04	7.31E-05	2.96E-04	1.64E-04	1.13E-05	3.13E-05	2.55E-05	7.05E-05	0.0027	0.0060	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Bromoform	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chlorobenzene	1.54E-04	8.51E-05	5.46E-04	3.01E-04	1.32E-05	3.65E-05	4.68E-05	1.29E-04	0.0031	0.0110	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chloroform	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chloromethane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	1.55E-04	8.55E-05	5.95E-04	3.29E-04	1.33E-05	3.67E-05	5.10E-05	1.41E-04	0.0031	0.0120	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Styrene	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Toluene	1.11E-04	6.11E-05	2.48E-04	1.37E-04	9.48E-06	2.62E-05	2.13E-05	5.87E-05	0.0022	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	1.33E-04	7.34E-05	2.48E-04	1.37E-04	1.14E-05	3.15E-05	2.13E-05	5.87E-05	0.0027	0.0050	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Xylenes	3.00E-04	1.66E-04	7.94E-03	4.38E-03	2.57E-05	7.11E-05	6.80E-04	1.88E-03	0.0061	0.1600	0.750	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE A.5-1 (cont.)
SCENARIO 5
INGESTION OF CHEMICALS IN DRINKING WATER
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX (mg/liter)	IR CHILD (liter/day)	IR ADULT (liter/day)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																				
1,4-Dichlorobenzene	2.53E-04	1.40E-04	4.96E-04	2.74E-04	2.16E-05	5.98E-05	4.25E-05	1.17E-04	0.0051	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	3.30E-04	1.82E-04	2.13E-03	1.18E-03	2.83E-05	7.80E-05	1.83E-04	5.05E-04	0.0066	0.0430	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
2,4-Dichlorophenol	2.48E-04	1.37E-04	0.00E+00	0.00E+00	2.13E-05	5.87E-05	0.00E+00	0.00E+00	0.0050	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	1.24E-03	6.85E-04	0.00E+00	0.00E+00	1.06E-04	2.94E-04	0.00E+00	0.00E+00	0.0250	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	5.32E-04	2.94E-04	9.92E-04	5.48E-04	4.56E-05	1.26E-04	8.50E-05	2.35E-04	0.0107	0.0200	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Acenaphthene	3.15E-04	1.74E-04	2.23E-03	1.23E-03	2.70E-05	7.45E-05	1.91E-04	5.28E-04	0.0063	0.0450	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Acenaphthylene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Anthracene	2.53E-04	1.40E-04	4.96E-04	2.74E-04	2.16E-05	5.98E-05	4.25E-05	1.17E-04	0.0051	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chrysene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(ah)anthracene	3.04E-04	1.68E-04	9.42E-04	5.21E-04	2.60E-05	7.19E-05	8.08E-05	2.23E-04	0.0061	0.0190	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Dibenzofuran	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Diethylphthalate	1.94E-04	1.07E-04	4.96E-04	2.74E-04	1.66E-05	4.59E-05	4.25E-05	1.17E-04	0.0039	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Dimethylphthalate	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Di-n-octylphthalate	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	2.43E-04	1.34E-04	4.96E-04	2.74E-04	2.08E-05	5.74E-05	4.25E-05	1.17E-04	0.0049	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Fluorene	2.97E-04	1.64E-04	1.24E-03	6.85E-04	2.54E-05	7.02E-05	1.06E-04	2.94E-04	0.0060	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	2.66E-04	1.47E-04	4.96E-04	2.74E-04	2.28E-05	6.29E-05	4.25E-05	1.17E-04	0.0054	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Naphthalene	4.15E-04	2.29E-04	1.19E-02	6.58E-03	3.56E-05	9.83E-05	1.02E-03	2.82E-03	0.0084	0.2400	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	2.92E-04	1.61E-04	1.04E-03	5.75E-04	2.50E-05	6.90E-05	8.93E-05	2.47E-04	0.0059	0.0210	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Phenol	2.48E-04	1.37E-04	0.00E+00	0.00E+00	2.13E-05	5.87E-05	0.00E+00	0.00E+00	0.0050	0.0000	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Pyrene	2.28E-04	1.25E-04	4.96E-04	2.74E-04	1.94E-05	5.36E-05	4.25E-05	1.17E-04	0.0046	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																				
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Aldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Alpha-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Beta-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Dieldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Delta-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Endosulfan I	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Endosulfan II	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Endosulfan Sulfate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Endrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Endrin ketone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Gamma-BHC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Gamma-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Heptachlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Heptachlor epoxide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Methoxychlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Toxaphene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
PCB's																				
Arodor-1016	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arodor-1221	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arodor-1232	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arodor-1242	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arodor-1248	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arodor-1254	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arodor-1260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE A.5-2
SCENARIO 5
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR CHILD (mg/dy)	IR ADULT (mg/dy)	CONVERSION FACTOR (10E-6kg/mg)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																						
Antimony	9.0E-06	9.4E-06	1.2E-03	1.3E-04	7.8E-06	4.0E-06	1.0E-04	5.4E-05	6.84	91.40	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	6.9E-06	7.1E-06	2.9E-04	2.7E-05	5.9E-06	3.0E-06	2.3E-05	1.2E-05	5.19	20.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	6.2E-06	6.4E-07	2.2E-05	2.3E-06	5.3E-07	2.8E-07	1.9E-06	1.0E-06	0.47	1.70	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	9.7E-06	1.0E-06	2.9E-04	3.0E-05	8.3E-07	4.3E-07	2.5E-05	1.3E-05	0.74	21.80	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	2.4E-04	2.5E-05	9.2E-04	9.5E-05	2.1E-05	1.1E-05	7.8E-05	4.1E-05	18.32	69.20	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	1.2E-04	1.3E-05	2.7E-04	2.8E-05	1.1E-05	5.5E-06	2.3E-05	1.2E-05	9.38	20.20	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	1.1E-03	1.2E-04	8.0E-02	8.3E-03	9.7E-05	5.0E-05	6.9E-03	3.6E-03	85.24	6070.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	6.5E-04	4.1E-05	1.3E-02	8.1E-04	5.6E-05	1.7E-05	1.1E-03	3.5E-04	98.80	1980.00	200	100	1.0E-06	350	6	30	a	14.5	70	2190	10950	25550
Manganese	5.1E-03	5.2E-04	9.0E-03	9.3E-04	4.3E-04	2.2E-04	7.7E-04	4.0E-04	382.52	676.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	1.3E-06	1.4E-07	2.1E-05	2.2E-06	1.1E-07	5.8E-08	1.8E-06	9.4E-07	0.10	1.60	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	2.8E-04	3.0E-05	1.4E-03	1.4E-04	2.4E-05	1.3E-05	1.2E-04	6.2E-05	21.54	105.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	4.7E-06	4.9E-07	2.6E-05	2.7E-06	4.0E-07	2.1E-07	2.3E-06	1.2E-06	0.36	2.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	3.2E-03	3.4E-04	2.5E-01	2.6E-02	2.8E-04	1.4E-04	2.2E-02	1.1E-02	245.18	19200.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																						
1,1-Dichloroethene	4.9E-08	5.1E-09	1.2E-07	1.2E-08	4.2E-09	2.2E-09	1.0E-08	5.3E-09	0.0037	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	5.4E-08	5.6E-09	1.2E-07	1.2E-08	4.7E-09	2.4E-09	1.0E-08	5.3E-09	0.0041	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	5.2E-08	5.4E-09	1.2E-07	1.2E-08	4.4E-09	2.3E-09	1.0E-08	5.3E-09	0.0039	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	6.1E-08	6.4E-09	1.6E-07	1.6E-08	5.3E-09	2.7E-09	1.4E-08	7.0E-09	0.0046	0.0120	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloroethane	4.9E-08	5.1E-09	1.2E-07	1.2E-08	4.2E-09	2.2E-09	1.0E-08	5.3E-09	0.0037	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloroethene	4.9E-08	5.1E-09	1.2E-07	1.2E-08	4.2E-09	2.2E-09	1.0E-08	5.3E-09	0.0037	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloropropane	5.3E-08	5.5E-09	1.2E-07	1.2E-08	4.5E-09	2.3E-09	1.0E-08	5.3E-09	0.0040	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2-Hexanone	1.2E-07	1.3E-08	3.3E-07	3.4E-08	1.0E-08	5.4E-09	2.8E-08	1.5E-08	0.0091	0.0250	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	5.2E-08	5.3E-09	1.2E-07	1.2E-08	4.4E-09	2.3E-09	1.0E-08	5.3E-09	0.0039	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bromodichloromethane	5.2E-08	5.3E-09	1.2E-07	1.2E-08	4.4E-09	2.3E-09	1.0E-08	5.3E-09	0.0039	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bromoform	5.2E-08	5.3E-09	1.2E-07	1.2E-08	4.4E-09	2.3E-09	1.0E-08	5.3E-09	0.0039	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon Tetrachloride	5.2E-08	5.4E-09	1.2E-07	1.2E-08	4.4E-09	2.3E-09	1.0E-08	5.3E-09	0.0039	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chlorobenzene	5.7E-08	5.9E-09	1.6E-07	1.6E-08	4.9E-09	2.5E-09	1.4E-08	7.0E-09	0.0043	0.0120	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chloroform	1.0E-07	1.0E-08	2.2E-07	2.3E-08	8.6E-09	4.5E-09	1.9E-08	1.0E-08	0.0076	0.0170	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chloromethane	4.9E-08	5.1E-09	1.2E-07	1.2E-08	4.2E-09	2.2E-09	1.0E-08	5.3E-09	0.0037	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibromochloromethane	5.2E-08	5.3E-09	1.2E-07	1.2E-08	4.4E-09	2.3E-09	1.0E-08	5.3E-09	0.0039	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Ethylbenzene	5.7E-08	5.9E-09	1.6E-07	1.6E-08	4.9E-09	2.5E-09	1.4E-08	7.0E-09	0.0043	0.0120	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	6.1E-08	6.4E-09	1.6E-07	1.6E-08	5.3E-09	2.7E-09	1.4E-08	7.0E-09	0.0046	0.0120	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	5.4E-08	5.6E-09	1.6E-07	1.6E-08	4.7E-09	2.4E-09	1.4E-08	7.0E-09	0.0041	0.0120	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Toluene	5.2E-08	5.4E-09	1.6E-07	1.6E-08	4.5E-09	2.3E-09	1.4E-08	7.0E-09	0.0040	0.0120	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Trichloroethene	5.2E-08	5.3E-09	1.2E-07	1.2E-08	4.4E-09	2.3E-09	1.0E-08	5.3E-09	0.0039	0.0090	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Vinyl chloride	1.0E-07	1.0E-08	2.2E-07	2.3E-08	8.6E-09	4.5E-09	1.9E-08	1.0E-08	0.0076	0.0170	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Xylenes	6.1E-08	6.4E-09	1.6E-07	1.6E-08	5.3E-09	2.7E-09	1.4E-08	7.0E-09	0.0046	0.0120	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550

a: Relative Absorption Factor for lead of 0.5 used for children, and 0.3 used for adults.

TABLE A.5-2 (cont.)
SCENARIO 5
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR CHILD (mg/dy)	IR ADULT (mg/dy)	CONVERSION FACTOR (10E-6kg/mg)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																						
1,4-Dichlorobenzene	5.8E-06	6.0E-07	5.8E-06	6.0E-07	5.0E-07	2.6E-07	5.0E-07	2.6E-07	0.440	0.440	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2-Methylnaphthalene	3.5E-06	3.6E-07	1.5E-06	1.5E-06	3.0E-07	1.6E-07	1.2E-06	6.5E-07	0.265	1.100	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,4-Dichlorophenol	5.8E-06	6.0E-07	5.8E-06	6.0E-07	5.0E-07	2.6E-07	5.0E-07	2.6E-07	0.440	0.440	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	2.9E-05	3.0E-06	2.9E-05	3.0E-06	2.5E-06	1.3E-06	2.5E-06	1.3E-06	2.200	2.200	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	1.0E-05	1.1E-06	2.1E-04	2.2E-05	8.8E-07	4.5E-07	1.8E-05	9.4E-06	0.773	16.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthene	4.2E-06	4.4E-07	5.0E-06	5.2E-06	3.6E-07	1.9E-07	4.3E-06	2.2E-06	0.321	3.800	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthylene	4.5E-06	4.7E-07	5.8E-06	6.0E-07	3.9E-07	2.0E-07	5.0E-07	2.6E-07	0.340	0.440	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	5.1E-06	5.3E-07	9.0E-06	9.3E-06	4.4E-07	2.3E-07	7.7E-06	4.0E-06	0.385	6.800	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	9.2E-06	9.5E-07	2.5E-04	2.6E-05	7.9E-07	4.1E-07	2.2E-05	1.1E-05	0.695	19.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	1.1E-05	1.1E-06	2.1E-04	2.2E-05	9.5E-07	4.9E-07	1.8E-05	9.4E-06	0.836	16.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.2E-05	1.3E-06	2.0E-04	2.1E-05	1.1E-06	5.5E-07	1.7E-05	8.8E-06	0.943	16.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ghi)perylene	9.7E-06	1.0E-06	1.1E-04	1.2E-05	8.3E-07	4.3E-07	9.5E-06	4.9E-06	0.735	8.400	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	1.1E-05	1.2E-06	1.9E-04	1.9E-05	9.5E-07	4.9E-07	1.6E-05	8.2E-06	0.841	14.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2-ethylhexyl)phthalate	4.9E-06	5.0E-07	1.0E-04	1.1E-05	4.2E-07	2.2E-07	9.0E-06	4.6E-06	0.368	7.900	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	3.7E-06	3.8E-07	1.0E-04	1.1E-05	3.2E-07	1.6E-07	9.0E-06	4.6E-06	0.281	7.900	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	1.1E-05	1.1E-06	2.4E-04	2.5E-05	9.3E-07	4.8E-07	2.0E-05	1.1E-05	0.821	18.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ah)anthracene	3.6E-06	3.8E-07	3.7E-05	3.8E-06	3.1E-07	1.6E-07	3.2E-06	1.6E-06	0.274	2.800	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzofuran	5.7E-06	5.9E-07	1.0E-04	1.1E-05	4.9E-07	2.5E-07	9.0E-06	4.6E-06	0.428	7.900	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Diethylphthalate	4.3E-06	4.4E-07	5.8E-06	6.0E-07	3.7E-07	1.9E-07	5.0E-07	2.6E-07	0.325	0.440	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dimethylphthalate	5.8E-06	6.0E-07	5.8E-06	6.0E-07	5.0E-07	2.6E-07	5.0E-07	2.6E-07	0.440	0.440	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	8.9E-06	9.2E-06	8.9E-06	9.2E-06	7.6E-06	3.9E-06	7.6E-06	3.9E-06	6.700	6.700	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-octylphthalate	5.6E-06	5.8E-07	1.0E-04	1.1E-05	4.8E-07	2.5E-07	9.0E-06	4.6E-06	0.421	7.900	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	1.8E-05	1.9E-06	6.1E-04	6.3E-05	1.6E-06	8.2E-07	5.2E-05	2.7E-05	1.395	46.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	4.4E-06	4.5E-07	6.2E-06	6.4E-06	3.7E-07	1.9E-07	5.3E-06	2.8E-06	0.329	4.700	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	9.5E-06	9.8E-07	1.2E-04	1.2E-05	8.1E-07	4.2E-07	1.0E-05	5.2E-06	0.716	8.900	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	4.1E-06	4.3E-07	4.0E-05	4.1E-06	3.5E-07	1.8E-07	3.4E-06	1.8E-06	0.312	3.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	1.1E-05	1.2E-06	3.4E-04	3.6E-05	9.6E-07	5.0E-07	2.9E-05	1.5E-05	0.849	26.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Phenol	5.8E-06	6.0E-07	5.8E-06	6.0E-07	5.0E-07	2.6E-07	5.0E-07	2.6E-07	0.440	0.440	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	1.7E-05	1.7E-06	3.6E-04	3.7E-05	1.4E-06	7.4E-07	3.1E-05	1.6E-05	1.261	27.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																						
4,4'-DDD	1.0E-07	1.0E-08	7.5E-07	7.8E-08	8.7E-09	4.5E-09	6.5E-08	3.3E-08	0.026	0.190	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
4,4'-DDE	8.5E-08	8.8E-09	9.5E-08	9.9E-09	7.3E-09	3.8E-09	8.2E-09	4.2E-09	0.021	0.024	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
4,4'-DDT	1.6E-07	1.7E-08	7.1E-08	7.4E-07	1.4E-08	7.2E-09	6.1E-07	3.2E-07	0.041	1.800	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Aldrin	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Alpha-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Alpha-chlordane	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Beta-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Delidrin	7.5E-08	7.8E-09	7.5E-08	7.8E-09	6.5E-09	3.3E-09	6.5E-09	3.3E-09	0.019	0.019	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Delta-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Endosulfan I	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Endosulfan II	7.5E-08	7.8E-09	7.5E-08	7.8E-09	6.5E-09	3.3E-09	6.5E-09	3.3E-09	0.019	0.019	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Endosulfan Sulfate	7.5E-08	7.8E-09	7.5E-08	7.8E-09	6.5E-09	3.3E-09	6.5E-09	3.3E-09	0.019	0.019	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Endrin	7.5E-08	7.8E-09	7.5E-08	7.8E-09	6.5E-09	3.3E-09	6.5E-09	3.3E-09	0.019	0.019	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Endrin ketone	7.5E-08	7.8E-09	7.5E-08	7.8E-09	6.5E-09	3.3E-09	6.5E-09	3.3E-09	0.019	0.019	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Gamma-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Gamma-chlordane	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Heptachlor	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Heptachlor epoxide	3.8E-08	3.9E-09	3.8E-08	3.9E-09	3.2E-09	1.7E-09	3.2E-09	1.7E-09	0.010	0.010	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Methoxychlor	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Toxaphene	7.5E-07	7.8E-08	7.5E-07	7.8E-08	6.5E-08	3.3E-08	6.5E-08	3.3E-08	0.190	0.190	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
PCB'S																						
Aroclor-1016	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Aroclor-1221	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Aroclor-1232	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Aroclor-1242	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Aroclor-1248	3.8E-07	3.9E-08	3.8E-07	3.9E-08	3.2E-08	1.7E-08	3.2E-08	1.7E-08	0.095	0.095	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Aroclor-1254	6.7E-07	9.0E-08	2.4E-06	2.5E-07	7.5E-08	3.9E-08	2.1E-07	1.1E-07	0.220	0.610	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
Aroclor-1260	7.5E-07	7.8E-08	7.5E-07	7.8E-08	6.5E-08	3.3E-08	6.5E-08	3.3E-08	0.190	0.190	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550

TABLE A.5-3
SCENARIO 5
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	ABS. DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6kg/mg)	SCR (mg/dy)	RAF (unit-less)	EF (days/y)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																					
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.8	91.4	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.2	20.0	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.5	1.7	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.7	21.8	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.3	69.2	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.4	20.2	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.2	6070.0	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	98.8	1980.0	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	382.5	678.0	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.1	1.6	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	21.5	105.0	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.4	2.0	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	245.2	19200.0	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethene	6.2E-08	1.3E-08	1.5E-07	3.1E-08	5.3E-09	5.6E-09	1.3E-08	1.3E-08	0.0037	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	6.8E-08	1.4E-08	1.5E-07	3.1E-08	5.8E-09	6.0E-09	1.3E-08	1.3E-08	0.0041	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	6.5E-08	1.3E-08	1.5E-07	3.1E-08	5.5E-09	5.7E-09	1.3E-08	1.3E-08	0.0039	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	7.7E-08	1.6E-08	2.0E-07	4.1E-08	6.6E-09	6.8E-09	1.7E-08	1.6E-08	0.0046	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethane	6.2E-08	1.3E-08	1.5E-07	3.1E-08	5.3E-09	5.5E-09	1.3E-08	1.3E-08	0.0037	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethene	6.2E-08	1.3E-08	1.5E-07	3.1E-08	5.3E-09	5.5E-09	1.3E-08	1.3E-08	0.0037	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	6.6E-08	1.4E-08	1.5E-07	3.1E-08	5.7E-09	5.9E-09	1.3E-08	1.3E-08	0.0040	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
2-Hexanone	1.5E-07	3.1E-08	4.1E-07	8.6E-08	1.3E-08	1.3E-08	3.5E-08	3.7E-08	0.0091	0.0250	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Benzene	6.4E-08	1.3E-08	1.5E-07	3.1E-08	5.5E-09	5.7E-09	1.3E-08	1.3E-08	0.0039	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	6.4E-08	1.3E-08	1.5E-07	3.1E-08	5.5E-09	5.7E-09	1.3E-08	1.3E-08	0.0039	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Bromoform	6.4E-08	1.3E-08	1.5E-07	3.1E-08	5.5E-09	5.7E-09	1.3E-08	1.3E-08	0.0039	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	6.5E-08	1.3E-08	1.5E-07	3.1E-08	5.5E-09	5.7E-09	1.3E-08	1.3E-08	0.0039	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Chlorobenzene	7.2E-08	1.5E-08	2.0E-07	4.1E-08	6.1E-09	6.4E-09	1.7E-08	1.6E-08	0.0043	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Chloroform	1.3E-07	2.6E-08	2.8E-07	5.8E-08	1.1E-08	1.1E-08	2.4E-08	2.5E-08	0.0076	0.0170	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Chloromethane	6.2E-08	1.3E-08	1.5E-07	3.1E-08	5.3E-09	5.5E-09	1.3E-08	1.3E-08	0.0037	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	6.4E-08	1.3E-08	1.5E-07	3.1E-08	5.5E-09	5.7E-09	1.3E-08	1.3E-08	0.0039	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	7.2E-08	1.5E-08	2.0E-07	4.1E-08	6.1E-09	6.4E-09	1.7E-08	1.6E-08	0.0043	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Styrene	7.7E-08	1.6E-08	2.0E-07	4.1E-08	6.6E-09	6.8E-09	1.7E-08	1.6E-08	0.0046	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	6.8E-08	1.4E-08	2.0E-07	4.1E-08	5.8E-09	6.0E-09	1.7E-08	1.6E-08	0.0041	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Toluene	6.6E-08	1.4E-08	2.0E-07	4.1E-08	5.8E-09	5.8E-09	1.7E-08	1.6E-08	0.0040	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	6.4E-08	1.3E-08	1.5E-07	3.1E-08	5.5E-09	5.7E-09	1.3E-08	1.3E-08	0.0039	0.0090	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	1.3E-07	2.6E-08	2.8E-07	5.8E-08	1.1E-08	1.1E-08	2.4E-08	2.5E-08	0.0076	0.0170	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Xylenes	7.7E-08	1.6E-08	2.0E-07	4.1E-08	6.6E-09	6.8E-09	1.7E-08	1.6E-08	0.0046	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550

TABLE A.5-3 (cont.)
SCENARIO 5
DERMAL CONTACT WITH CHEMICALS IN SOIL
MCALLISTER POINT LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	ABS. DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6kg/mg)	SCR (mg/dy)	RAF (unit-less)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,4-Dichlorobenzene	7.3E-07	1.5E-07	7.3E-07	1.5E-07	6.2E-08	6.5E-08	6.2E-08	6.5E-08	0.44	0.44	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	4.4E-07	9.1E-08	1.6E-06	3.6E-07	3.8E-08	3.9E-08	1.6E-07	1.6E-07	0.27	1.10	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
2,4-Dichlorophenol	7.3E-07	1.5E-07	7.3E-07	1.5E-07	6.2E-08	6.5E-08	6.2E-08	6.5E-08	0.44	0.44	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	3.6E-06	7.5E-07	3.6E-06	7.5E-07	3.1E-07	3.2E-07	3.1E-07	3.2E-07	2.20	2.20	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	1.3E-06	2.6E-07	2.6E-06	5.5E-06	1.1E-07	1.1E-07	2.3E-06	2.3E-06	0.77	16.00	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Acenaphthene	6.3E-07	1.1E-07	6.3E-06	1.3E-06	4.6E-08	4.7E-08	5.4E-07	5.6E-07	0.32	3.80	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Acenaphthylene	5.6E-07	1.2E-07	7.3E-07	1.5E-07	4.6E-08	5.0E-08	6.2E-08	6.5E-08	0.34	0.44	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Anthracene	6.4E-07	1.3E-07	1.1E-05	2.3E-06	5.6E-08	5.6E-06	9.6E-07	1.0E-06	0.38	6.80	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	1.1E-06	2.4E-07	3.1E-05	6.5E-06	9.9E-08	1.0E-07	2.7E-06	2.8E-06	0.70	19.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	1.4E-06	2.9E-07	2.6E-05	5.5E-06	1.2E-07	1.2E-07	2.3E-06	2.3E-06	0.84	16.00	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.6E-06	3.2E-07	2.5E-05	5.1E-06	1.3E-07	1.4E-07	2.1E-06	2.2E-06	0.94	15.00	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	1.2E-06	2.5E-07	1.4E-05	2.9E-06	1.0E-07	1.1E-07	1.2E-06	1.2E-06	0.74	8.40	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	1.4E-06	2.9E-07	2.3E-05	4.8E-06	1.2E-07	1.2E-07	2.0E-06	2.1E-06	0.84	14.00	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	6.1E-07	1.3E-07	1.3E-05	2.7E-06	5.2E-08	5.4E-08	1.1E-06	1.2E-06	0.37	7.90	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	4.6E-07	9.8E-08	1.3E-05	2.7E-06	4.0E-08	4.1E-08	1.1E-06	1.2E-06	0.28	7.90	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Chrysene	1.4E-06	2.8E-07	3.0E-05	6.2E-06	1.2E-07	1.2E-07	2.6E-06	2.6E-06	0.82	18.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(ah)anthracene	4.5E-07	9.4E-08	4.6E-06	9.6E-07	3.9E-08	4.0E-08	4.0E-07	4.1E-07	0.27	2.80	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Dibenzofuran	7.1E-07	1.5E-07	1.3E-05	2.7E-06	6.1E-08	6.3E-08	1.1E-06	1.2E-06	0.43	7.90	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Diethylphthalate	5.4E-07	1.1E-07	7.3E-07	1.5E-07	4.6E-08	4.8E-08	6.2E-08	6.5E-08	0.32	0.44	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Dimethylphthalate	7.3E-07	1.5E-07	7.3E-07	1.5E-07	6.2E-08	6.5E-08	6.2E-08	6.5E-08	0.44	0.44	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	1.1E-06	2.3E-08	1.1E-06	2.3E-06	9.5E-07	9.8E-07	9.5E-07	9.8E-07	6.70	6.70	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Di-n-octylphthalate	7.0E-07	1.4E-07	1.3E-06	2.7E-06	6.0E-08	6.2E-08	1.1E-06	1.2E-06	0.42	7.90	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	2.3E-06	4.8E-07	7.6E-06	1.6E-06	2.0E-07	2.0E-07	6.5E-06	6.8E-06	1.39	46.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Fluorene	5.4E-07	1.1E-07	7.8E-06	1.6E-06	4.7E-08	4.8E-08	6.7E-07	6.9E-07	0.33	4.70	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	1.2E-06	2.5E-07	1.5E-05	3.0E-06	1.0E-07	1.1E-07	1.3E-06	1.3E-06	0.72	9.90	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Naphthalene	5.2E-07	1.1E-07	5.0E-06	1.0E-06	4.4E-08	4.6E-08	4.3E-07	4.4E-07	0.31	3.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	1.4E-06	2.9E-07	4.3E-05	8.9E-06	1.2E-07	1.2E-07	3.7E-06	3.8E-06	0.85	26.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Phenol	7.3E-07	1.5E-07	7.3E-07	1.5E-07	6.2E-08	6.5E-08	6.2E-08	6.5E-08	0.44	0.44	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Pyrene	2.1E-06	4.3E-07	4.5E-05	9.2E-06	1.8E-07	1.9E-07	3.8E-06	4.0E-06	1.26	27.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDD	4.2E-08	8.7E-09	3.1E-07	6.5E-08	3.6E-09	3.7E-09	2.7E-08	2.8E-08	0.026	0.190	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
4,4'-DDE	3.5E-08	7.3E-09	4.0E-08	8.2E-09	3.0E-09	3.1E-09	3.4E-09	3.5E-09	0.021	0.024	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	6.8E-08	1.4E-08	3.0E-06	6.2E-07	5.8E-09	6.0E-09	2.6E-07	2.8E-07	0.041	1.800	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Aldrin	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Alpha-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Alpha-chlordane	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.096	0.096	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Beta-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Dieldrin	3.1E-08	6.5E-09	3.1E-08	6.5E-09	2.7E-09	2.8E-09	2.7E-09	2.8E-09	0.019	0.019	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Delta-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Endosulfan I	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Endosulfan II	3.1E-08	6.5E-09	3.1E-08	6.5E-09	2.7E-09	2.8E-09	2.7E-09	2.8E-09	0.019	0.019	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Endosulfan Sulfate	3.1E-08	6.5E-09	3.1E-08	6.5E-09	2.7E-09	2.8E-09	2.7E-09	2.8E-09	0.019	0.019	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Endrin	3.1E-08	6.5E-09	3.1E-08	6.5E-09	2.7E-09	2.8E-09	2.7E-09	2.8E-09	0.019	0.019	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Endrin ketone	3.1E-08	6.5E-09	3.1E-08	6.5E-09	2.7E-09	2.8E-09	2.7E-09	2.8E-09	0.019	0.019	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Gamma-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Gamma-chlordane	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.096	0.095	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Heptachlor	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Heptachlor epoxide	1.6E-08	3.3E-09	1.6E-08	3.3E-09	1.3E-09	1.4E-09	1.3E-09	1.4E-09	0.010	0.010	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Methoxychlor	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.095	0.095	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Toxaphene	3.1E-07	6.5E-08	3.1E-07	6.5E-08	2.7E-08	2.8E-08	2.7E-08	2.8E-08	0.190	0.190	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
PCB's																					
Aroclor-1016	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.10	0.10	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Aroclor-1221	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.10	0.10	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Aroclor-1232	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.10	0.10	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Aroclor-1242	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.10	0.10	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Aroclor-1248	1.6E-07	3.3E-08	1.6E-07	3.3E-08	1.3E-08	1.4E-08	1.3E-08	1.4E-08	0.10	0.10	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Aroclor-1254	3.6E-07	7.5E-08	1.0E-06	2.1E-07	3.1E-08	3.2E-08	8.6E-08	9.0E-08	0.22	0.61	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Aroclor-1260	3.1E-07	6.5E-08	3.1E-07	6.5E-08	2.7E-08	2.8E-08	2.7E-08	2.8E-08	0.19	0.19	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550

TABLE A.5-4
SCENARIO 5
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER-MEAN (mg/kg/day)	INTAKE ADULT CANCER-MEAN (mg/kg/day)	INTAKE CHILD CANCER-MAX (mg/kg/day)	INTAKE ADULT CANCER-MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR (m3/day)	EF (days/year)	ED CHILD (years)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																					
Antimony	2.23E-09	4.61E-10	2.97E-08	6.16E-09	1.91E-10	1.96E-10	2.55E-09	2.64E-09	2.46E-10	6.84	91.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	1.69E-09	3.49E-10	6.51E-09	1.35E-09	1.45E-10	1.50E-10	5.58E-10	5.78E-10	2.46E-10	5.19	20.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	1.53E-10	3.17E-11	5.53E-10	1.15E-10	1.31E-11	1.36E-11	4.74E-11	4.91E-11	2.46E-10	0.47	1.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	2.40E-10	4.96E-11	7.06E-09	1.47E-09	2.06E-11	2.13E-11	6.08E-10	6.30E-10	2.46E-10	0.74	21.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	5.96E-09	1.23E-09	2.26E-08	4.68E-09	5.11E-10	5.29E-10	1.93E-09	2.00E-09	2.46E-10	16.32	69.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	3.06E-09	6.32E-10	6.57E-09	1.36E-09	2.62E-10	2.71E-10	5.63E-10	5.83E-10	2.46E-10	9.38	20.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	2.77E-08	5.74E-09	1.97E-08	4.09E-07	2.38E-09	2.46E-09	1.69E-07	1.75E-07	2.46E-10	85.24	6070.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	3.21E-08	6.66E-09	6.44E-07	1.33E-07	2.76E-09	2.85E-09	5.52E-08	5.72E-08	2.46E-10	98.80	1960.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Manganese	1.24E-07	2.58E-08	2.21E-07	4.57E-08	1.07E-08	1.10E-08	1.89E-08	1.96E-08	2.46E-10	382.52	678.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	3.24E-11	6.72E-12	5.21E-10	1.08E-10	2.78E-12	2.88E-12	4.46E-11	4.62E-11	2.46E-10	0.10	1.60	20	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	7.01E-09	1.45E-09	3.42E-08	7.09E-09	6.01E-10	6.22E-10	2.93E-09	3.03E-09	2.46E-10	21.54	105.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	1.16E-10	2.40E-11	6.51E-10	1.35E-10	9.94E-12	1.03E-11	5.58E-11	5.78E-11	2.46E-10	0.36	2.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	7.98E-08	1.65E-08	6.25E-08	1.29E-08	6.84E-09	7.08E-09	5.35E-07	5.55E-07	2.46E-10	245.18	19200.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethene	1.21E-12	2.52E-13	2.93E-12	6.07E-13	1.04E-13	1.08E-13	2.51E-13	2.60E-13	2.46E-10	0.0037	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	1.34E-12	2.77E-13	2.93E-12	6.07E-13	1.15E-13	1.19E-13	2.51E-13	2.60E-13	2.46E-10	0.0041	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	1.27E-12	2.64E-13	2.93E-12	6.07E-13	1.09E-13	1.13E-13	2.51E-13	2.60E-13	2.46E-10	0.0039	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	1.51E-12	3.12E-13	3.90E-12	8.09E-13	1.29E-13	1.34E-13	3.35E-13	3.47E-13	2.46E-10	0.0046	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloroethane	1.21E-12	2.52E-13	2.93E-12	6.07E-13	1.04E-13	1.08E-13	2.51E-13	2.60E-13	2.46E-10	0.0037	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloroethene	1.21E-12	2.52E-13	2.93E-12	6.07E-13	1.04E-13	1.08E-13	2.51E-13	2.60E-13	2.46E-10	0.0037	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloropropane	1.30E-12	2.69E-13	2.93E-12	6.07E-13	1.12E-13	1.16E-13	2.51E-13	2.60E-13	2.46E-10	0.0040	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
2-Hexanone	2.97E-12	6.16E-13	8.13E-12	1.68E-12	2.55E-13	2.64E-13	6.97E-13	7.22E-13	2.46E-10	0.0091	0.0250	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	1.27E-12	2.63E-13	2.93E-12	6.07E-13	1.09E-13	1.13E-13	2.51E-13	2.60E-13	2.46E-10	0.0039	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromodichloromethane	1.27E-12	2.63E-13	2.93E-12	6.07E-13	1.09E-13	1.13E-13	2.51E-13	2.60E-13	2.46E-10	0.0039	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromoform	1.27E-12	2.63E-13	2.93E-12	6.07E-13	1.09E-13	1.13E-13	2.51E-13	2.60E-13	2.46E-10	0.0039	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon Tetrachloride	1.27E-12	2.64E-13	2.93E-12	6.07E-13	1.09E-13	1.13E-13	2.51E-13	2.60E-13	2.46E-10	0.0039	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chlorobenzene	1.41E-12	2.92E-13	3.90E-12	8.09E-13	1.21E-13	1.26E-13	3.35E-13	3.47E-13	2.46E-10	0.0043	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chloroform	2.48E-12	5.14E-13	5.53E-12	1.15E-12	2.13E-13	2.20E-13	4.74E-13	4.91E-13	2.46E-10	0.0076	0.0170	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chloromethane	1.21E-12	2.52E-13	2.93E-12	6.07E-13	1.04E-13	1.08E-13	2.51E-13	2.60E-13	2.46E-10	0.0037	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibromochloromethane	1.27E-12	2.63E-13	2.93E-12	6.07E-13	1.09E-13	1.13E-13	2.51E-13	2.60E-13	2.46E-10	0.0039	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
Ethylbenzene	1.41E-12	2.92E-13	3.90E-12	8.09E-13	1.21E-13	1.26E-13	3.35E-13	3.47E-13	2.46E-10	0.0043	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	1.51E-12	3.12E-13	3.90E-12	8.09E-13	1.29E-13	1.34E-13	3.35E-13	3.47E-13	2.46E-10	0.0046	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	1.34E-12	2.77E-13	3.90E-12	8.09E-13	1.15E-13	1.19E-13	3.35E-13	3.47E-13	2.46E-10	0.0041	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550
Toluene	1.29E-12	2.68E-13	3.90E-12	8.09E-13	1.11E-13	1.15E-13	3.35E-13	3.47E-13	2.46E-10	0.0040	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550
Trichloroethene	1.27E-12	2.63E-13	2.93E-12	6.07E-13	1.09E-13	1.13E-13	2.51E-13	2.60E-13	2.46E-10	0.0039	0.0090	20	350	6	30	1.0	14.5	70	2190	10950	25550
Vinyl chloride	2.48E-12	5.14E-13	5.53E-12	1.15E-12	2.13E-13	2.20E-13	4.74E-13	4.91E-13	2.46E-10	0.0076	0.0170	20	350	6	30	1.0	14.5	70	2190	10950	25550
Xylenes	1.51E-12	3.12E-13	3.90E-12	8.09E-13	1.29E-13	1.34E-13	3.35E-13	3.47E-13	2.46E-10	0.0046	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE A.5-4 (cont.)
SCENARIO 5
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER-MEAN (mg/kg/day)	INTAKE ADULT CANCER-MEAN (mg/kg/day)	INTAKE CHILD CANCER-MAX (mg/kg/day)	INTAKE ADULT CANCER-MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR (m3/dy)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,4-Dichlorobenzene	1.43E-10	2.97E-11	1.43E-10	2.97E-11	1.23E-11	1.27E-11	1.23E-11	1.27E-11	2.46E-10	0.44	0.44	20	350	6	30	1.0	14.5	70	2190	10950	25550
2-Methylnaphthalene	8.93E-11	1.79E-11	3.58E-10	7.41E-11	7.40E-12	7.66E-12	3.07E-11	3.18E-11	2.46E-10	0.27	1.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4-Dichlorophenol	1.43E-10	2.97E-11	1.43E-10	2.97E-11	1.23E-11	1.27E-11	1.23E-11	1.27E-11	2.46E-10	0.44	0.44	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	7.16E-10	1.48E-10	7.16E-10	1.48E-10	6.14E-11	6.35E-11	6.14E-11	6.35E-11	2.46E-10	2.20	2.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	2.51E-10	5.21E-11	5.21E-09	1.08E-09	2.16E-11	2.23E-11	4.46E-10	4.62E-10	2.46E-10	0.77	16.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthene	1.04E-10	2.16E-11	1.24E-09	2.56E-10	8.94E-12	9.26E-12	1.08E-10	1.12E-10	2.46E-10	0.32	3.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthylene	1.11E-10	2.29E-11	1.43E-10	2.97E-11	9.46E-12	9.82E-12	1.23E-11	1.27E-11	2.46E-10	0.34	0.44	20	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	1.25E-10	2.59E-11	2.21E-09	4.58E-10	1.07E-11	1.11E-11	1.90E-10	1.96E-10	2.46E-10	0.38	6.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	2.26E-10	4.69E-11	6.18E-09	1.28E-09	1.94E-11	2.01E-11	5.30E-10	5.49E-10	2.46E-10	0.70	19.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	2.72E-10	5.63E-11	5.21E-09	1.08E-09	2.33E-11	2.41E-11	4.46E-10	4.62E-10	2.46E-10	0.84	16.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	3.07E-10	6.35E-11	4.88E-09	1.01E-09	2.63E-11	2.72E-11	4.18E-10	4.33E-10	2.46E-10	0.94	15.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ghi)perylene	2.39E-10	4.96E-11	2.73E-09	5.66E-10	2.06E-11	2.12E-11	2.34E-10	2.43E-10	2.46E-10	0.74	8.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	2.74E-10	5.67E-11	4.56E-09	9.44E-10	2.36E-11	2.43E-11	3.90E-10	4.04E-10	2.46E-10	0.84	14.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	1.20E-10	2.48E-11	2.57E-09	5.32E-10	1.03E-11	1.06E-11	2.20E-10	2.28E-10	2.46E-10	0.37	7.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	9.13E-11	1.89E-11	2.57E-09	5.32E-10	7.82E-12	8.10E-12	2.20E-10	2.28E-10	2.46E-10	0.28	7.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	2.57E-10	5.34E-11	5.86E-09	1.21E-09	2.29E-11	2.37E-11	5.02E-10	5.20E-10	2.46E-10	0.82	18.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ah)anthracene	8.92E-11	1.85E-11	9.11E-10	1.88E-10	7.64E-12	7.92E-12	7.81E-11	8.09E-11	2.46E-10	0.27	2.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzofuran	1.30E-10	2.69E-11	2.57E-09	5.32E-10	1.19E-11	1.24E-11	2.20E-10	2.28E-10	2.46E-10	0.43	7.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Diethylphthalate	1.06E-10	2.19E-11	1.43E-10	2.97E-11	9.06E-12	9.37E-12	1.23E-11	1.27E-11	2.46E-10	0.32	0.44	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dimethylphthalate	1.43E-10	2.97E-11	1.43E-10	2.97E-11	1.23E-11	1.27E-11	1.23E-11	1.27E-11	2.46E-10	0.44	0.44	20	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	2.16E-09	4.52E-10	2.16E-09	4.52E-10	1.87E-10	1.94E-10	1.87E-10	1.94E-10	2.46E-10	6.70	6.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-octylphthalate	1.37E-10	2.83E-11	2.57E-09	5.32E-10	1.17E-11	1.21E-11	2.20E-10	2.28E-10	2.46E-10	0.42	7.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	4.54E-10	9.40E-11	1.50E-08	3.10E-09	3.89E-11	4.03E-11	1.28E-09	1.33E-09	2.46E-10	1.39	46.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	1.07E-10	2.22E-11	1.53E-09	3.17E-10	9.18E-12	9.50E-12	1.31E-10	1.36E-10	2.46E-10	0.33	4.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	2.33E-10	4.82E-11	2.90E-09	6.00E-10	2.00E-11	2.07E-11	2.48E-10	2.57E-10	2.46E-10	0.72	8.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	1.01E-10	2.10E-11	9.76E-10	2.02E-10	8.69E-12	9.00E-12	8.37E-11	8.67E-11	2.46E-10	0.31	3.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	2.76E-10	5.72E-11	8.46E-09	1.75E-09	2.37E-11	2.45E-11	7.25E-10	7.51E-10	2.46E-10	0.85	26.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenol	1.43E-10	2.97E-11	1.43E-10	2.97E-11	1.23E-11	1.27E-11	1.23E-11	1.27E-11	2.46E-10	0.44	0.44	20	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	4.10E-10	8.50E-11	8.76E-09	1.82E-09	3.52E-11	3.64E-11	7.53E-10	7.80E-10	2.46E-10	1.26	27.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDD	8.30E-12	1.72E-12	6.18E-11	1.28E-11	7.11E-13	7.37E-13	5.30E-12	5.49E-12	2.46E-10	0.028	0.190	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDE	6.96E-12	1.44E-12	7.81E-12	1.62E-12	5.97E-13	6.18E-13	6.69E-13	6.93E-13	2.46E-10	0.021	0.024	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDT	1.33E-11	2.76E-12	5.80E-10	1.21E-10	1.14E-12	1.18E-12	5.02E-11	5.20E-11	2.46E-10	0.041	1.800	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aldrin	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Alpha-BHC	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Alpha-chlordane	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.095	0.095	20	350	6	30	1.0	14.5	70	2190	10950	25550
Beta-BHC	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Delidrin	6.18E-12	1.28E-12	6.18E-12	1.28E-12	5.30E-13	5.49E-13	5.30E-13	5.49E-13	2.46E-10	0.019	0.019	20	350	6	30	1.0	14.5	70	2190	10950	25550
Delta-BHC	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Endosulfan I	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Endosulfan II	6.18E-12	1.28E-12	6.18E-12	1.28E-12	5.30E-13	5.49E-13	5.30E-13	5.49E-13	2.46E-10	0.019	0.019	20	350	6	30	1.0	14.5	70	2190	10950	25550
Endosulfan Sulfate	6.18E-12	1.28E-12	6.18E-12	1.28E-12	5.30E-13	5.49E-13	5.30E-13	5.49E-13	2.46E-10	0.019	0.019	20	350	6	30	1.0	14.5	70	2190	10950	25550
Endrin	6.18E-12	1.28E-12	6.18E-12	1.28E-12	5.30E-13	5.49E-13	5.30E-13	5.49E-13	2.46E-10	0.019	0.019	20	350	6	30	1.0	14.5	70	2190	10950	25550
Endrin ketone	6.18E-12	1.28E-12	6.18E-12	1.28E-12	5.30E-13	5.49E-13	5.30E-13	5.49E-13	2.46E-10	0.019	0.019	20	350	6	30	1.0	14.5	70	2190	10950	25550
Gamma-BHC	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Gamma-chlordane	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.095	0.095	20	350	6	30	1.0	14.5	70	2190	10950	25550
Heptachlor	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Heptachlor epoxide	3.09E-12	6.40E-13	3.09E-12	6.40E-13	2.65E-13	2.74E-13	2.65E-13	2.74E-13	2.46E-10	0.010	0.010	20	350	6	30	1.0	14.5	70	2190	10950	25550
Methoxychlor	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.095	0.095	20	350	6	30	1.0	14.5	70	2190	10950	25550
Toxaphene	6.18E-11	1.28E-11	6.18E-11	1.28E-11	5.30E-12	5.49E-12	5.30E-12	5.49E-12	2.46E-10	0.190	0.190	20	350	6	30	1.0	14.5	70	2190	10950	25550
PCB's																					
Aroclor-1016	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.10	0.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aroclor-1221	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.10	0.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aroclor-1232	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.10	0.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aroclor-1242	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.10	0.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aroclor-1248	3.09E-11	6.40E-12	3.09E-11	6.40E-12	2.65E-12	2.74E-12	2.65E-12	2.74E-12	2.46E-10	0.10	0.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aroclor-1254	7.15E-11	1.48E-11	1.98E-10	4.11E-11	6.13E-12	6.35E-12	1.70E-11	1.76E-11	2.46E-10	0.22	0.61	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aroclor-1260	6.18E-11	1.28E-11	6.18E-11	1.28E-11	5.30E-12	5.49E-12	5.30E-12	5.49E-12	2.46E-10	0.19	0.19	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE A.5-5
SCENARIO 5
INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS
MCALLISTER POINT LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN AIR-MEAN (mg/m3)	CONC. IN AIR-MAX (mg/m3)	IR (m3/hour)	ET (hours/da	EF (days/yr	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
VOLATILES																				
1,1-Dichloroethene	1.24E-04	2.57E-05	1.24E-04	2.57E-05	1.06E-05	1.10E-05	1.06E-05	1.10E-05	1.50E-02	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethene	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
2-Hexanone	2.16E-04	4.47E-05	2.48E-04	5.14E-05	1.85E-05	1.92E-05	2.13E-05	2.20E-05	2.61E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzene	6.62E-05	1.37E-05	1.49E-04	3.08E-05	5.67E-06	5.87E-06	1.28E-05	1.32E-05	8.00E-03	1.80E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bromoform	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Chlorobenzene	7.71E-05	1.60E-05	2.73E-04	5.65E-05	6.60E-06	6.84E-06	2.34E-05	2.42E-05	9.32E-03	3.30E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Chloroform	1.33E-04	2.75E-05	2.48E-04	5.14E-05	1.14E-05	1.18E-05	2.13E-05	2.20E-05	1.61E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Chloromethane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	7.74E-05	1.60E-05	2.98E-04	6.16E-05	6.64E-06	6.87E-06	2.55E-05	2.64E-05	9.36E-03	3.60E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Styrene	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Toluene	5.53E-05	1.15E-05	1.24E-04	2.57E-05	4.74E-06	4.91E-06	1.06E-05	1.10E-05	6.69E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	6.64E-05	1.38E-05	1.24E-04	2.57E-05	5.70E-06	5.90E-06	1.06E-05	1.10E-05	8.04E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	1.33E-04	2.75E-05	2.48E-04	5.14E-05	1.14E-05	1.18E-05	2.13E-05	2.20E-05	1.61E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Xylenes	1.50E-04	3.11E-05	3.97E-03	8.22E-04	1.29E-05	1.33E-05	3.40E-04	3.52E-04	1.62E-02	4.80E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550

TABLE A.5–6
SCENARIO 5
COMPOUND CONCENTRATIONS EMITTED FROM TAP WATER
MCALLISTER POINT LANDFILL

COMPOUND NAME	Concentration in tap water Mean (mg/L)	Concentration in tap water Max (mg/L)	Flow Rate Of Shower Water (l/hr)	Fraction Of Contaminant Volatilized	One Half The Duration Of Shower (hr)	Bathroom Volume (m3)	Conc In Bathroom Mean (mg/m3)	Conc In Bathroom Max (mg/m3)
VOLATILES								
1,1–Dichloroethene	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
1,1,1–Trichloroethane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
1,1,2–Trichloroethane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
1,1,2,2–Tetrachloroethane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
1,2–Dichloroethane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
1,2–Dichloroethene	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
1,2–Dichloropropane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
2–Hexanone	0.0087	0.0100	400.0	0.9	0.1	12.0	2.6E–02	3.0E–02
Benzene	0.0027	0.0060	400.0	0.9	0.1	12.0	8.0E–03	1.8E–02
Bromodichloromethane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Bromoform	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Carbon Tetrachloride	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Chlorobenzene	0.0031	0.0110	400.0	0.9	0.1	12.0	9.3E–03	3.3E–02
Chloroform	0.0054	0.0100	400.0	0.9	0.1	12.0	1.6E–02	3.0E–02
Chloromethane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Dibromochloromethane	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Ethylbenzene	0.0031	0.0120	400.0	0.9	0.1	12.0	9.4E–03	3.6E–02
Styrene	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Tetrachloroethene	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Toluene	0.0022	0.0050	400.0	0.9	0.1	12.0	6.7E–03	1.5E–02
Trichloroethene	0.0027	0.0050	400.0	0.9	0.1	12.0	8.0E–03	1.5E–02
Vinyl chloride	0.0054	0.0100	400.0	0.9	0.1	12.0	1.6E–02	3.0E–02
Xylenes	0.0061	0.1600	400.0	0.9	0.1	12.0	1.8E–02	4.8E–01

TABLE A.5-7
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX	TOTAL PATHWAY RISK	TOTAL RISK	
														2.2E-03	2.2E-03	CHILD MEAN
														6.0E-03	6.0E-03	ADULT MEAN
														4.5E-03	4.5E-03	CHILD MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER														1.2E-02	1.2E-02	ADULT MAX
INORGANICS																
Antimony	1.6E-04	4.3E-04	1.1E-03	3.0E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Arsenic	1.2E-04	3.4E-04	3.8E-04	1.0E-03	No	1.75E+00	A	Skin	Water/IRIS	2.1E-04	5.9E-04	6.7E-04	1.8E-03			
Beryllium	9.5E-06	2.6E-05	5.4E-05	1.5E-04	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	4.1E-05	1.1E-04	2.3E-04	6.5E-04			
Cadmium	2.2E-05	6.0E-05	2.4E-04	6.7E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Chromium	1.3E-04	3.6E-04	1.1E-03	2.9E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Cobalt	2.5E-04	6.8E-04	3.1E-03	8.7E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Copper	6.1E-04	1.7E-03	1.3E-02	3.7E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Lead	3.4E-04	9.5E-04	2.0E-02	5.6E-02	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Manganese	1.4E-02	3.8E-02	8.9E-02	2.5E-01	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Mercury	1.5E-06	4.2E-06	3.6E-06	9.9E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Nickel	6.4E-04	1.8E-03	2.9E-03	8.0E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Selenium	5.8E-06	1.6E-05	1.1E-05	2.9E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Zinc	2.4E-03	6.6E-03	5.1E-02	1.4E-01	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
VOLATILES																
1,1-Dichloroethene	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	6E-01	C	Adrenal pheochromocytomas	Oral/IRIS	6.8E-06	1.9E-05	1.3E-05	3.5E-05			
1,1,1-Trichloroethane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
1,1,2-Trichloroethane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	6.5E-07	1.8E-06	1.2E-06	3.3E-06			
1,1,2,2-Tetrachloroethane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2.3E-06	6.3E-06	4.3E-06	1.2E-05			
1,2-Dichloroethane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	9E-02	B2	Hemangiosarcoma	Gavage/IRIS	1.0E-06	2.9E-06	1.9E-06	5.3E-06			
1,2-Dichloroethene	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
1,2-Dichloropropane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	6.80E-02	B2	Liver	Gavage/HEAST	7.7E-07	2.1E-06	1.4E-06	4.0E-06			
2-Hexanone	3.7E-05	1.0E-04	4.3E-05	1.2E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Benzene	1.1E-05	3.1E-05	2.6E-05	7.0E-05	No	2.90E-02	A	Leukemia	Occupational/IRIS	3.3E-07	9.1E-07	7.4E-07	2.0E-06			
Bromodichloromethane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	1.5E-06	4.1E-06	2.8E-06	7.6E-06			
Bromoform	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	7.90E-03	B2	Ig. Intestin Neoplastic lesion	Gavage/IRIS	9.0E-08	2.5E-07	1.7E-07	4.6E-07			
Carbon Tetrachloride	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	1.5E-06	4.1E-06	2.8E-06	7.6E-06			
Chlorobenzene	1.3E-05	3.6E-05	4.7E-05	1.3E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Chloroform	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.30E-02	C	Kidney	Inhalation/HEAST	3.0E-07	8.2E-07	5.5E-07	1.5E-06			
Chloromethane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	6.9E-08	1.9E-07	1.3E-07	3.6E-07			
Dibromochloromethane	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	9.6E-07	2.6E-06	1.8E-06	4.9E-06			
Ethylbenzene	1.3E-05	3.7E-05	5.1E-05	1.4E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Styrene	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	3.4E-07	9.4E-07	6.4E-07	1.8E-06			
Tetrachloroethene	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	5.10E-02	B2	Liver	Gavage/HEAST	5.8E-07	1.6E-06	1.1E-06	3.0E-06			
Toluene	9.5E-06	2.6E-05	2.1E-05	5.9E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Trichloroethene	1.1E-05	3.1E-05	2.1E-05	5.9E-05	No	1.10E-02	B2	Liver	Gavage/HEAST	1.3E-07	3.5E-07	2.3E-07	6.5E-07			
Vinyl chloride	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.90E+00	A	Lung	Diet/HEAST	4.3E-05	1.2E-04	8.1E-05	2.2E-04			
Xylenes	2.6E-05	7.1E-05	5.8E-04	1.9E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			

TABLE A.5-7 (cont.)
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)$^{-1}$	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER													
SEMIVOLATILES													
1,4-Dichloroberzene	2.2E-05	6.0E-05	4.3E-05	1.2E-04	No	2.40E-02	C	Liver	Gavage/HEAST	5.2E-07	1.4E-06	1.0E-06	2.8E-06
2-Methylnaphthalene	2.8E-05	7.8E-05	1.8E-04	5.0E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4-Dichlorophenol	2.1E-05	5.9E-05	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	1.1E-04	2.9E-04	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	4.6E-05	1.3E-04	8.5E-05	2.3E-04	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	2.1E-05	5.7E-05	3.8E-05	1.1E-04
Acenaphthene	2.7E-05	7.4E-05	1.9E-04	5.3E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Anthracene	2.2E-05	6.0E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	2.6E-04	7.2E-04	4.9E-04	1.4E-03
Benzo(a)pyrene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, Stomach	IRIS	2.6E-04	7.2E-04	4.9E-04	1.4E-03
Benzo(b)fluoranthene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	2.6E-04	7.2E-04	4.9E-04	1.4E-03
Benzo(ghi)perylene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	2.6E-04	7.2E-04	4.9E-04	1.4E-03
Bis(2ethylhexyl)phthalate	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.40E-02	B2	Liver	IRIS	3.2E-07	8.8E-07	6.0E-07	1.6E-06
Butylbenzylphthalate	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Malignant lymphoma	IRIS	2.6E-04	7.2E-04	4.9E-04	1.4E-03
Benzo(ah)anthracene	2.6E-05	7.2E-05	8.1E-05	2.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dibenzofuran	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, Mammary	IRIS	2.6E-04	7.2E-04	4.9E-04	1.4E-03
Diethylphthalate	1.7E-05	4.6E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethylphthalate	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-butylphthalate	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octylphthalate	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoranthene	2.1E-05	5.7E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	2.5E-05	7.0E-05	1.1E-04	2.9E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	2.3E-05	6.3E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, Skin	IRIS	2.6E-04	7.2E-04	4.9E-04	1.4E-03
Naphthalene	3.6E-05	9.8E-05	1.0E-03	2.8E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	2.5E-05	6.9E-05	8.9E-05	2.5E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenol	2.1E-05	5.9E-05	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	1.9E-05	5.4E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.4E-01	B2	Liver tumor	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Alpha-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No					0.0E+00	0.0E+00	0.0E+00	0.0E+00
Beta-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Delta-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan I	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan II	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No					0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan Sulfate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No					0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin ketone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No					0.0E+00	0.0E+00	0.0E+00	0.0E+00
Gamma-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E+00	B2-C	Liver	Diet/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Gamma-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Heptachlor epoxide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methoxychlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodule	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PCB's													
Arodor-1016	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arodor-1221	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arodor-1232	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arodor-1242	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arodor-1248	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arodor-1254	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.7E+00				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Arodor-1260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00

TABLE A.5-6
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

CHEMICAL	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX	TOTAL PATHWAY RISK	
														1.2E-06	CHILD MEAN
														1.2E-06	ADULT MEAN
														2.7E-06	CHILD MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL														2.8E-06	ADULT MAX
VOLATILES															
1,1-Dichloroethene	5.3E-09	5.5E-09	1.3E-08	1.3E-08	No	6E-01	C	Adrenal pheochromocytomas	Oral/IRIS	3.2E-09	3.3E-09	7.7E-09	7.9E-09		
1,1,1-Trichloroethane	5.8E-09	6.0E-09	1.3E-08	1.3E-08	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	5.5E-09	5.7E-09	1.3E-08	1.3E-08	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.2E-10	3.3E-10	7.3E-10	7.5E-10		
1,1,2,2-Tetrachloroethane	6.6E-09	6.8E-09	1.7E-08	1.8E-08	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.3E-09	1.4E-09	3.4E-09	3.5E-09		
1,2-Dichloroethane	5.3E-09	5.5E-09	1.3E-08	1.3E-08	No	9E-02	B2	Hemangiosarcoma	Gavage/IRIS	4.8E-10	5.0E-10	1.2E-09	1.2E-09		
1,2-Dichloroethene	5.3E-09	5.5E-09	1.3E-08	1.3E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,2-Dichloropropane	5.7E-09	5.9E-09	1.3E-08	1.3E-08	No	6.80E-02	B2	Liver	Gavage/HEAST	3.9E-10	4.0E-10	8.7E-10	9.0E-10		
2-Hexanone	1.3E-08	1.3E-08	3.5E-08	3.7E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	5.5E-09	5.7E-09	1.3E-08	1.3E-08	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.6E-10	1.7E-10	3.7E-10	3.8E-10		
Bromodichloromethane	5.5E-09	5.7E-09	1.3E-08	1.3E-08	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	7.2E-10	7.4E-10	1.7E-09	1.7E-09		
Bromoform	5.5E-09	5.7E-09	1.3E-08	1.3E-08	No	7.90E-03	B2	Ig. Intestin Neoplastic lesion	Gavage/IRIS	4.4E-11	4.5E-11	1.0E-10	1.0E-10		
Carbon Tetrachloride	5.5E-09	5.7E-09	1.3E-08	1.3E-08	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	7.2E-10	7.5E-10	1.7E-09	1.7E-09		
Chlorobenzene	6.1E-09	6.4E-09	1.7E-08	1.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	1.1E-08	1.1E-08	2.4E-08	2.5E-08	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.4E-10	1.5E-10	3.1E-10	3.2E-10		
Chloromethane	5.3E-09	5.5E-09	1.3E-08	1.3E-08	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	3.2E-11	3.3E-11	7.8E-11	8.1E-11		
Dibromochloromethane	5.5E-09	5.7E-09	1.3E-08	1.3E-08	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	4.6E-10	4.8E-10	1.1E-09	1.1E-09		
Ethylbenzene	6.1E-09	6.4E-09	1.7E-08	1.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	6.6E-09	6.8E-09	1.7E-08	1.8E-08	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	2.0E-10	2.0E-10	5.1E-10	5.3E-10		
Tetrachloroethene	5.8E-09	6.0E-09	1.7E-08	1.8E-08	No	5.10E-02	B2	Liver	Gavage/HEAST	3.0E-10	3.1E-10	8.7E-10	9.0E-10		
Toluene	5.6E-09	5.8E-09	1.7E-08	1.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Trichloroethene	5.5E-09	5.7E-09	1.3E-08	1.3E-08	No	1.10E-02	B2	Liver	Gavage/HEAST	6.1E-11	6.3E-11	1.4E-10	1.5E-10		
Vinyl chloride	1.1E-08	1.1E-08	2.4E-08	2.5E-08	No	1.90E+00	A	Lung	Diet/HEAST	2.1E-08	2.1E-08	4.6E-08	4.7E-08		
Xylenes	6.6E-09	6.8E-09	1.7E-08	1.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

TABLE A.5-8 (cont.)
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

CHEMICAL	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL													
SEMIVOLATILES													
1,4-Dichlorobenzene	6.2E-08	6.5E-08	6.2E-08	6.5E-08	No	2.40E-02	C	Liver	Gavage/HEAST	1.5E-09	1.5E-09	1.5E-09	1.5E-09
2-Methylnaphthalene	3.9E-08	3.9E-08	1.6E-07	1.6E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4-Dichlorophenol	6.2E-08	6.5E-08	6.2E-08	6.5E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	3.1E-07	3.2E-07	3.1E-07	3.2E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	1.1E-07	1.1E-07	2.3E-08	2.3E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	4.9E-08	5.1E-08	1.0E-08	1.1E-08
Acenaphthene	4.5E-08	4.7E-08	5.4E-07	5.6E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	4.8E-08	5.0E-08	6.2E-08	6.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Anthracene	5.5E-08	5.6E-08	9.6E-07	1.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	9.9E-08	1.0E-07	2.7E-08	2.8E-08	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	1.2E-07	1.2E-07	2.3E-08	2.3E-08	No	NA	B2	Lung, Stomach	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	1.3E-07	1.4E-07	2.1E-08	2.2E-08	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(ghi)perylene	1.0E-07	1.1E-07	1.2E-08	1.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	1.2E-07	1.2E-07	2.0E-08	2.1E-08	No	NA	B2	Lung, Thorax, Skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	5.2E-08	5.4E-08	1.1E-08	1.2E-08	No	1.40E-02	B2	Liver	IRIS	7.3E-10	7.6E-10	1.6E-08	1.6E-08
Butylbenzylphthalate	4.0E-08	4.1E-08	1.1E-08	1.2E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	1.2E-07	1.2E-07	2.6E-08	2.6E-08	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(ah)anthracene	3.9E-08	4.0E-08	4.0E-07	4.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dibenzofuran	6.1E-08	6.3E-08	1.1E-08	1.2E-08	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Diethylphthalate	4.6E-08	4.8E-08	6.2E-08	6.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethylphthalate	6.2E-08	6.5E-08	6.2E-08	6.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-butylphthalate	9.5E-07	9.8E-07	9.5E-07	9.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octylphthalate	6.0E-08	6.2E-08	1.1E-08	1.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoranthene	2.0E-07	2.0E-07	6.5E-08	6.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	4.7E-08	4.8E-08	6.7E-07	6.9E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	1.0E-07	1.1E-07	1.3E-08	1.3E-08	No	NA	B2	Lung, Skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Naphthalene	4.4E-08	4.6E-08	4.3E-07	4.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	1.2E-07	1.2E-07	3.7E-08	3.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenol	6.2E-08	6.5E-08	6.2E-08	6.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	1.8E-07	1.9E-07	3.8E-08	4.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES						NA							
						NA							
4,4'-DDD	3.6E-09	3.7E-09	2.7E-08	2.8E-08	No	2.4E-01	B2	Liver tumor	Oral/IRIS	8.7E-10	9.0E-10	6.5E-08	6.7E-09
4,4'-DDE	3.0E-08	3.1E-08	3.4E-08	3.5E-08	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.0E-09	1.1E-09	1.2E-09	1.2E-09
4,4'-DDT	5.8E-09	6.0E-09	2.6E-07	2.6E-07	No	3.4E-01	B2	Liver tumor	Diet/IRIS	2.0E-09	2.0E-09	8.7E-08	9.0E-08
Aldrin	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	2.3E-08	2.4E-08	2.3E-08	2.4E-08
Alpha-BHC	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	8.5E-09	8.8E-09	8.5E-09	8.8E-09
Alpha-chlordane	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Beta-BHC	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	2.4E-09	2.5E-09	2.4E-09	2.5E-09
Dieldrin	2.7E-08	2.8E-08	2.7E-08	2.8E-08	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	4.3E-08	4.5E-08	4.3E-08	4.5E-08
Delta-BHC	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan I	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan II	2.7E-08	2.8E-08	2.7E-08	2.8E-08	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan Sulfate	2.7E-08	2.8E-08	2.7E-08	2.8E-08	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin	2.7E-08	2.8E-08	2.7E-08	2.8E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin ketone	2.7E-08	2.8E-08	2.7E-08	2.8E-08	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Gamma-BHC	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	1.3E+00	B2-C	Liver	Diet/HEAST	1.8E-09	1.8E-09	1.8E-09	1.8E-09
Gamma-chlordane	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.8E-08	1.8E-08	1.8E-08	1.8E-08
Heptachlor	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	6.1E-09	6.3E-09	6.1E-09	6.3E-09
Heptachlor epoxide	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.2E-08	1.3E-08	1.2E-08	1.3E-08
Methoxychlor	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toxaphene	2.7E-08	2.8E-08	2.7E-08	2.8E-08	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodule	Diet/IRIS	3.0E-08	3.1E-08	3.0E-08	3.1E-08
PCB's													
Aroclor-1016	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	7.7E+00				1.0E-07	1.1E-07	1.0E-07	1.1E-07
Aroclor-1221	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	7.7E+00				1.0E-07	1.1E-07	1.0E-07	1.1E-07
Aroclor-1232	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	7.7E+00				1.0E-07	1.1E-07	1.0E-07	1.1E-07
Aroclor-1242	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	7.7E+00				1.0E-07	1.1E-07	1.0E-07	1.1E-07
Aroclor-1248	1.3E-08	1.4E-08	1.3E-08	1.4E-08	No	7.7E+00				1.0E-07	1.1E-07	1.0E-07	1.1E-07
Aroclor-1254	3.1E-08	3.2E-08	8.6E-08	9.0E-08	No	7.7E+00				2.4E-07	2.5E-07	6.7E-07	6.9E-07
Aroclor-1260	2.7E-08	2.8E-08	2.7E-08	2.8E-08	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	2.1E-07	2.1E-07	2.1E-07	2.1E-07

TABLE A.5-9
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX	TOTAL PATHWAY RISK	
														8.5E-05	CHILD MEAN
														4.4E-05	ADULT MEAN
														1.3E-03	CHILD MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST														7.0E-04	ADULT MAX
INORGANICS															
Antimony	7.6E-06	4.0E-06	1.0E-04	5.4E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Arsenic	5.9E-06	3.0E-06	2.3E-05	1.2E-05	No	1.75E+00	A	Skin	Water/IRIS	1.0E-05	5.3E-06	4.0E-05	2.1E-05		
Beryllium	5.3E-07	2.8E-07	1.9E-06	1.0E-06	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	2.3E-06	1.2E-06	8.3E-06	4.3E-06		
Cadmium	8.3E-07	4.3E-07	2.5E-06	1.3E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chromium	2.1E-06	1.1E-06	7.8E-06	4.1E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Cobalt	1.1E-05	5.5E-06	2.3E-05	1.2E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Copper	9.7E-05	5.0E-05	6.9E-03	3.6E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Lead	5.8E-06	1.7E-06	1.1E-03	3.8E-04	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Manganese	4.3E-04	2.2E-04	7.7E-04	4.0E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Mercury	1.1E-07	5.8E-08	1.8E-06	9.4E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Nickel	2.4E-05	1.3E-05	1.2E-04	6.2E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Selenium	4.0E-07	2.1E-07	2.3E-06	1.2E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Zinc	2.8E-04	1.4E-04	2.2E-02	1.1E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
VOLATILES															
1,1-Dichloroethene	4.2E-09	2.2E-09	1.0E-06	5.3E-09	No	6E-01	C	Adrenal pheochromocytomas	Oral/IRIS	2.5E-09	1.3E-09	6.1E-09	3.2E-09		
1,1,1-Trichloroethane	4.7E-09	2.4E-09	1.0E-06	5.3E-09	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	4.4E-09	2.3E-09	1.0E-06	5.3E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	2.5E-10	1.3E-10	5.8E-10	3.0E-10		
1,1,2,2-Tetrachloroethane	5.3E-09	2.7E-09	1.4E-06	7.0E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.1E-09	5.4E-10	2.7E-09	1.4E-09		
1,2-Dichloroethane	4.2E-09	2.2E-09	1.0E-06	5.3E-09	No	9E-02	B2	Hemangiosarcoma	Gavage/IRIS	3.9E-10	2.0E-10	9.3E-10	4.8E-10		
1,2-Dichloroethene	4.2E-09	2.2E-09	1.0E-06	5.3E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,2-Dichloropropane	4.5E-09	2.3E-09	1.0E-06	5.3E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	3.1E-10	1.6E-10	6.9E-10	3.6E-10		
2-Hexanone	1.0E-08	5.4E-09	2.5E-06	1.3E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	4.4E-09	2.3E-09	1.0E-06	5.3E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.3E-10	6.8E-11	3.0E-10	1.5E-10		
Bromodichloromethane	4.4E-09	2.3E-09	1.0E-06	5.3E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	5.7E-10	3.0E-10	1.3E-09	6.9E-10		
Bromoform	4.4E-09	2.3E-09	1.0E-06	5.3E-09	No	7.90E-03	B2	Ig. intestin Neoplastic lesion	Gavage/IRIS	3.5E-11	1.8E-11	8.1E-11	4.2E-11		
Carbon Tetrachloride	4.4E-09	2.3E-09	1.0E-06	5.3E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	5.8E-10	3.0E-10	1.3E-09	6.9E-10		
Chlorobenzene	4.9E-09	2.5E-09	1.4E-06	7.0E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	8.6E-09	4.5E-09	1.9E-06	1.0E-06	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.1E-10	5.8E-11	2.5E-10	1.3E-10		
Chloromethane	4.2E-09	2.2E-09	1.0E-06	5.3E-09	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	2.6E-11	1.3E-11	6.2E-11	3.2E-11		
Dibromochloromethane	4.4E-09	2.3E-09	1.0E-06	5.3E-09	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	3.7E-10	1.9E-10	8.6E-10	4.4E-10		
Ethylbenzene	4.9E-09	2.5E-09	1.4E-06	7.0E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	5.3E-09	2.7E-09	1.4E-06	7.0E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.6E-10	8.2E-11	4.1E-10	2.1E-10		
Tetrachloroethene	4.7E-09	2.4E-09	1.4E-06	7.0E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	2.4E-10	1.2E-10	6.9E-10	3.6E-10		
Toluene	4.5E-09	2.3E-09	1.4E-06	7.0E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Trichloroethene	4.4E-09	2.3E-09	1.0E-06	5.3E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	4.9E-11	2.5E-11	1.1E-10	5.8E-11		
Vinyl chloride	8.6E-09	4.5E-09	1.9E-06	1.0E-06	No	1.90E+00	A	Lung	Diet/HEAST	1.6E-08	8.5E-09	3.7E-08	1.9E-08		
Xylenes	5.3E-09	2.7E-09	1.4E-06	7.0E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

TABLE A.5-9 (cont.)
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST													
SEMIVOLATILES													
1,4-Dichlorobenzene	5.0E-07	2.6E-07	5.0E-07	2.6E-07	No	2.40E-02	C	Liver	Gavage/HEAST	1.2E-08	6.2E-09	1.2E-08	6.2E-09
2-Methylnaphthalene	3.0E-07	1.6E-07	1.2E-06	6.5E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4-Dichlorophenol	5.0E-07	2.6E-07	5.0E-07	2.6E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	2.5E-06	1.3E-06	2.5E-06	1.3E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	8.8E-07	4.5E-07	1.8E-05	9.4E-06	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	3.9E-07	2.0E-07	8.2E-06	4.2E-06
Acenaphthene	3.8E-07	1.9E-07	4.3E-06	2.2E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	3.9E-07	2.0E-07	5.0E-07	2.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Anthracene	4.4E-07	2.3E-07	7.7E-06	4.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	7.9E-07	4.1E-07	2.2E-05	1.1E-05	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	9.1E-06	4.7E-06	2.5E-04	1.3E-04
Benzo(a)pyrene	9.5E-07	4.9E-07	1.8E-05	9.4E-06	No	1.15E+01	B2	Lung, Stomach	IRIS	1.1E-05	5.6E-06	2.1E-04	1.1E-04
Benzo(b)fluoranthene	1.1E-06	5.5E-07	1.7E-05	8.8E-06	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.2E-05	6.4E-06	2.0E-04	1.0E-04
Benzo(ghi)perylene	8.3E-07	4.3E-07	9.5E-06	4.9E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	9.5E-07	4.9E-07	1.6E-05	8.2E-06	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.1E-05	5.7E-06	1.8E-04	9.5E-05
Bis(2ethylhexyl)phthalate	4.2E-07	2.2E-07	9.0E-06	4.6E-06	No	1.40E-02	B2	Liver	IRIS	5.8E-09	3.0E-09	1.3E-07	6.5E-08
Butylbenzylphthalate	3.2E-07	1.6E-07	9.0E-06	4.6E-06	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	9.3E-07	4.8E-07	2.0E-05	1.1E-05	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.1E-05	5.5E-06	2.3E-04	1.2E-04
Benzo(ah)anthracene	3.1E-07	1.6E-07	3.2E-06	1.6E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dibenzofuran	4.9E-07	2.5E-07	9.0E-06	4.6E-06	No	1.15E+01	B2	Lung, Mammary	IRIS	5.6E-06	2.9E-06	1.0E-04	5.3E-05
Diethylphthalate	3.7E-07	1.9E-07	5.0E-07	2.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethylphthalate	5.0E-07	2.6E-07	5.0E-07	2.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-butylphthalate	7.6E-06	3.9E-06	7.6E-06	3.9E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octylphthalate	4.8E-07	2.5E-07	9.0E-06	4.6E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoranthene	1.6E-06	8.2E-07	5.2E-05	2.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	3.7E-07	1.9E-07	5.3E-06	2.9E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	8.1E-07	4.2E-07	1.0E-05	5.2E-06	No	1.15E+01	B2	Lung, Skin	IRIS	9.3E-06	4.8E-06	1.2E-04	6.0E-05
Naphthalene	3.5E-07	1.8E-07	3.4E-06	1.8E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	9.6E-07	5.0E-07	2.9E-06	1.5E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenol	5.0E-07	2.6E-07	5.0E-07	2.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	1.4E-06	7.4E-07	3.1E-05	1.6E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES													
4,4'-DDD	8.7E-09	4.5E-09	6.5E-08	3.3E-08	No	2.4E-01	B2	Liver tumor	Oral/IRIS	2.1E-09	1.1E-09	1.6E-08	8.0E-09
4,4'-DDE	7.3E-09	3.8E-09	8.2E-09	4.2E-09	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.5E-09	1.3E-09	2.8E-09	1.4E-09
4,4'-DDT	1.4E-06	7.2E-09	6.1E-07	3.2E-07	No	3.4E-01	B2	Liver tumor	Diet/IRIS	4.7E-09	2.5E-09	2.1E-07	1.1E-07
Aldrin	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	5.5E-08	2.8E-08	5.5E-08	2.8E-08
Alpha-BHC	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	6.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.0E-08	1.1E-08	2.0E-08	1.1E-08
Alpha-chlordane	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Beta-BHC	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	1.8E+00	C	Hepatic nodules	Diet/IRIS	5.8E-09	3.0E-09	5.8E-09	3.0E-09
Dieldrin	6.5E-09	3.3E-09	6.5E-09	3.3E-09	No	1.6E+01	B2	Liver carcinomas	Oral/IRIS	1.0E-07	5.4E-08	1.0E-07	5.4E-08
Delta-BHC	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan I	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan II	6.5E-09	3.3E-09	6.5E-09	3.3E-09	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan Sulfate	6.5E-09	3.3E-09	6.5E-09	3.3E-09	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin	6.5E-09	3.3E-09	6.5E-09	3.3E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin ketone	6.5E-09	3.3E-09	6.5E-09	3.3E-09	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Gamma-BHC	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	1.3E+00	B2-C	Liver	Diet/HEAST	4.2E-09	2.2E-09	4.2E-09	2.2E-09
Gamma-chlordane	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	4.2E-08	2.2E-08	4.2E-08	2.2E-08
Heptachlor	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.5E-08	7.5E-09	1.5E-08	7.5E-09
Heptachlor epoxide	3.2E-09	1.7E-09	3.2E-09	1.7E-09	No	9.1E+00	B2	Hepatocellular carcinoma	Diet/IRIS	2.9E-08	1.5E-08	2.9E-08	1.5E-08
Methoxychlor	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toxaphene	6.5E-08	3.3E-08	6.5E-08	3.3E-08	No	1.1E+00	B2	Hepatocellular carcinomas, neoplastic nodule	Diet/IRIS	7.1E-08	3.7E-08	7.1E-08	3.7E-08
PCB's													
Aroclor-1016	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	7.7E+00				2.5E-07	1.3E-07	2.5E-07	1.3E-07
Aroclor-1221	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	7.7E+00				2.5E-07	1.3E-07	2.5E-07	1.3E-07
Aroclor-1232	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	7.7E+00				2.5E-07	1.3E-07	2.5E-07	1.3E-07
Aroclor-1242	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	7.7E+00				2.5E-07	1.3E-07	2.5E-07	1.3E-07
Aroclor-1248	3.2E-08	1.7E-08	3.2E-08	1.7E-08	No	7.7E+00				2.5E-07	1.3E-07	2.5E-07	1.3E-07
Aroclor-1254	7.5E-08	3.9E-08	2.1E-07	1.1E-07	No	7.7E+00				5.8E-07	3.0E-07	1.6E-06	8.3E-07
Aroclor-1260	6.5E-08	3.3E-08	6.5E-08	3.3E-08	No	7.7E+00	B2	Liver	Diet/IRIS,HEAST	5.0E-07	2.6E-07	5.0E-07	2.6E-07

TABLE A.5-10
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

CHEMICAL	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX	TOTAL PATHWAY RISK	
														9.3E-06	CHILD MEAN
														9.6E-06	ADULT MEAN
														1.6E-05	CHILD MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS														1.6E-05	ADULT MAX
VOLATILES															
1,1-Dichloroethene	1.1E-05	1.1E-05	1.1E-05	1.1E-05	No	1.8E-01	C	Kidney, Adenocarcinoma	IRIS/HEAST	1.9E-06	2.0E-06	1.9E-06	2.0E-06		
1,1,1-Trichloroethane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.2E-07	3.4E-07	6.1E-07	6.3E-07		
1,1,2,2-Tetrachloroethane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.2E-06	1.2E-06	2.2E-06	2.2E-06		
1,2-Dichloroethane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	9.1E-02	B2	Hemangiosarcoma	Gavage/IRIS	5.2E-07	5.4E-07	9.7E-07	1.0E-06		
1,2-Dichloroethene	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,2-Dichloropropane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	NA	B2		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
2-Hexanone	1.9E-05	1.9E-05	2.1E-05	2.2E-05	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	5.7E-06	5.9E-06	1.3E-05	1.3E-05	No	2.9E-02	A	Leukemia	Occupational/IRIS	1.6E-07	1.7E-07	3.7E-07	3.8E-07		
Bromodichloromethane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Bromoform	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	3.9E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	2.2E-06	2.3E-06	4.1E-06	4.2E-06		
Carbon Tetrachloride	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	1.3E-01	B2	Liver	Gavage/HEAST	7.4E-07	7.7E-07	1.4E-06	1.4E-06		
Chlorobenzene	6.6E-06	6.8E-06	2.3E-05	2.4E-05	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	1.1E-05	1.2E-05	2.1E-05	2.2E-05	No	8.1E-02	B2	Liver	IRIS	9.2E-07	9.5E-07	1.7E-06	1.8E-06		
Chloromethane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	6.0E-03	C	Kidney	Inhalation/HEAST	3.4E-06	3.5E-06	6.4E-06	6.6E-06		
Dibromochloromethane	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Ethylbenzene	6.6E-06	6.9E-06	2.6E-05	2.6E-05	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	2.0E-03	B2	Leukemia	HEAST	1.1E-06	1.2E-06	2.1E-06	2.2E-06		
Tetrachloroethene	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	1.8E-03	B2	Leukemia, Liver	HEAST	1.0E-06	1.1E-06	1.9E-06	2.0E-06		
Toluene	4.7E-06	4.9E-06	1.1E-05	1.1E-05	No	NA	D		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Trichloroethene	5.7E-06	5.9E-06	1.1E-05	1.1E-05	No	1.7E-02	B2	Lung	HEAST	9.7E-06	1.0E-07	1.8E-07	1.9E-07		
Vinyl chloride	1.1E-05	1.2E-05	2.1E-05	2.2E-05	No	2.9E-01	A	Liver	Inhalation/HEAST	3.3E-06	3.5E-06	6.2E-06	6.5E-06		
Xylenes	1.3E-05	1.3E-05	3.4E-04	3.5E-04	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

TABLE A.5-11
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX	TOTAL PATHWAY RISK	
														2.5E-08	CHILD MEAN
														2.6E-08	ADULT MEAN
														1.1E-07	CHILD MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST														1.2E-07	ADULT MAX
INORGANICS															
Antimony	1.9E-10	2.0E-10	2.5E-09	2.6E-09	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Arsenic	1.4E-10	1.5E-10	5.6E-10	5.8E-10	No	1.5E+01	A	Respiratory Tract	Occupational/IRIS	2.2E-09	2.3E-09	8.4E-09	8.7E-09		
Beryllium	1.3E-11	1.4E-11	4.7E-11	4.9E-11	No	8.4E+00	B2	Lung	Occupational/IRIS	1.1E-10	1.1E-10	4.0E-10	4.1E-10		
Cadmium	2.1E-11	2.1E-11	8.1E-10	6.3E-10	No	6.3E+00	B1	Respiratory Tract	Occupational/IRIS	1.3E-10	1.3E-10	3.8E-09	4.0E-09		
Chromium	5.1E-10	5.3E-10	1.9E-09	2.0E-09	No	4.2E+01	A	Lung	Occupational/IRIS	2.1E-08	2.2E-08	8.1E-08	8.4E-08		
Cobalt	2.6E-10	2.7E-10	5.6E-10	5.8E-10	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Copper	2.4E-09	2.5E-09	1.7E-07	1.8E-07	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Lead	2.8E-09	2.9E-09	5.5E-08	5.7E-08	No	NA	B2		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Manganese	1.1E-08	1.1E-08	1.9E-08	2.0E-08	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Mercury	2.8E-12	2.9E-12	4.5E-11	4.6E-11	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Nickel	6.0E-10	6.2E-10	2.9E-09	3.0E-09	No	8.4E-01	A	Lung and nasal tumors	Occupational/IRIS	5.0E-10	5.2E-10	2.5E-09	2.5E-09		
Selenium	9.9E-12	1.0E-11	5.6E-11	5.6E-11	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Zinc	6.8E-09	7.1E-09	5.4E-07	5.5E-07	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
VOLATILES															
1,1-Dichloroethene	1.0E-13	1.1E-13	2.5E-13	2.6E-13	No	1.8E-01	C	Kidney, Adenocarcinoma	IRIS/HEAST	1.9E-14	1.9E-14	4.5E-14	4.7E-14		
1,1,1-Trichloroethane	1.1E-13	1.2E-13	2.5E-13	2.6E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	1.1E-13	1.1E-13	2.5E-13	2.6E-13	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	6.2E-15	6.4E-15	1.4E-14	1.5E-14		
1,1,2,2-Tetrachloroethane	1.3E-13	1.3E-13	3.3E-13	3.5E-13	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2.6E-14	2.7E-14	6.8E-14	7.0E-14		
1,2-Dichloroethane	1.0E-13	1.1E-13	2.5E-13	2.6E-13	No	9.1E-02	B2	Hemangiosarcoma	Gavage/IRIS	9.5E-15	9.8E-15	2.3E-14	2.4E-14		
1,2-Dichloroethene	1.0E-13	1.1E-13	2.5E-13	2.6E-13	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,2-Dichloropropane	1.1E-13	1.2E-13	2.5E-13	2.6E-13	No	NA	B2		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
2-Hexanone	2.5E-13	2.6E-13	7.0E-13	7.2E-13	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	1.1E-13	1.1E-13	2.5E-13	2.6E-13	No	2.9E-02	A	Leukemia	Occupational/IRIS	3.2E-15	3.3E-15	7.3E-15	7.6E-15		
Bromodichloromethane	1.1E-13	1.1E-13	2.5E-13	2.6E-13	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Bromoform	1.1E-13	1.1E-13	2.5E-13	2.6E-13	No	3.9E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	4.2E-16	4.3E-16	9.7E-16	1.0E-15		
Carbon Tetrachloride	1.1E-13	1.1E-13	2.5E-13	2.6E-13	No	1.3E-01	B2	Liver	Gavage/HEAST	1.4E-14	1.5E-14	3.3E-14	3.4E-14		
Chlorobenzene	1.2E-13	1.3E-13	3.3E-13	3.5E-13	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	2.1E-13	2.2E-13	4.7E-13	4.9E-13	No	8.1E-02	B2	Liver	IRIS	1.7E-14	1.8E-14	3.8E-14	4.0E-14		
Chloromethane	1.0E-13	1.1E-13	2.5E-13	2.6E-13	No	6.0E-03	C	Kidney	Inhalation/HEAST	6.2E-16	6.5E-16	1.5E-15	1.6E-15		
Dibromochloromethane	1.1E-13	1.1E-13	2.5E-13	2.6E-13	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Ethylbenzene	1.2E-13	1.3E-13	3.3E-13	3.5E-13	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	1.3E-13	1.3E-13	3.3E-13	3.5E-13	No	2.0E-03	B2	Leukemia	HEAST	2.6E-16	2.7E-16	6.7E-16	6.9E-16		
Tetrachloroethene	1.1E-13	1.2E-13	3.3E-13	3.5E-13	No	1.8E-03	B2	Leukemia, Liver	HEAST	2.1E-16	2.1E-16	6.0E-16	6.2E-16		
Toluene	1.1E-13	1.1E-13	3.3E-13	3.5E-13	No	NA	D		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Trichloroethene	1.1E-13	1.1E-13	2.6E-13	2.6E-13	No	1.7E-02	B2	Lung	HEAST	1.8E-15	1.9E-15	4.3E-15	4.4E-15		
Vinyl chloride	2.1E-13	2.2E-13	4.7E-13	4.9E-13	No	2.9E-01	A	Liver	Inhalation/HEAST	6.3E-14	6.5E-14	1.4E-13	1.4E-13		
Xylenes	1.3E-13	1.3E-13	3.3E-13	3.5E-13	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

TABLE A.5-11 (cont.)
SCENARIO 5
CANCER RISK ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK CHILD-MEAN	CHEM. SPEC. RISK ADULT-MEAN	CHEM. SPEC. RISK CHILD-MAX	CHEM. SPEC. RISK ADULT-MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST													
SEMIVOLATILES										0.0E+00	0.0E+00	0.0E+00	0.0E+00
										0.0E+00	0.0E+00	0.0E+00	0.0E+00
1,4-Dichlorobenzene	1.2E-11	1.3E-11	1.2E-11	1.3E-11	No	NA	C		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2-Methylnaphthalene	7.4E-12	7.7E-12	3.1E-11	3.2E-11	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4-Dichlorophenol	1.2E-11	1.3E-11	1.2E-11	1.3E-11	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	6.1E-11	6.4E-11	6.1E-11	6.4E-11	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	2.2E-11	2.2E-11	4.5E-10	4.6E-10	No	NA	B2		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthene	8.9E-12	9.3E-12	1.1E-10	1.1E-10	No	NA			IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	9.5E-12	9.8E-12	1.2E-11	1.3E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Anthracene	1.1E-11	1.1E-11	1.9E-10	2.0E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	1.9E-11	2.0E-11	5.3E-10	5.5E-10	No	6.1E+00	B2		IRIS	1.2E-10	1.2E-10	3.2E-09	3.3E-09
Benzo(a)pyrene	2.3E-11	2.4E-11	4.5E-10	4.6E-10	No	6.1E+00	B2	Respiratory tract	Inhalation/HEAST	1.4E-10	1.5E-10	2.7E-09	2.8E-09
Benzo(b)fluoranthene	2.6E-11	2.7E-11	4.2E-10	4.3E-10	No	6.1E+00	B2		IRIS	1.6E-10	1.7E-10	2.6E-09	2.6E-09
Benzo(ghi)perylene	2.1E-11	2.1E-11	2.3E-10	2.4E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	2.3E-11	2.4E-11	3.9E-10	4.0E-10	No	6.1E+00	B2		IRIS	1.4E-10	1.5E-10	2.4E-09	2.5E-09
Bis(2-ethylhexyl)phthalate	1.0E-11	1.1E-11	2.2E-10	2.3E-10	No	NA	B2		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Butylbenzylphthalate	7.8E-12	8.1E-12	2.2E-10	2.3E-10	No	NA	C		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	2.3E-11	2.4E-11	5.0E-10	5.2E-10	No	6.1E+00	B2		IRIS	1.4E-10	1.4E-10	3.1E-09	3.2E-09
Dibenzo(ah)anthracene	7.6E-12	7.9E-12	7.8E-11	8.1E-11	No	6.1E+00	B2		IRIS	4.7E-11	4.8E-11	4.8E-10	4.9E-10
Dibenzofuran	1.2E-11	1.2E-11	2.2E-10	2.3E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Diethylphthalate	9.0E-12	9.4E-12	1.2E-11	1.3E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dimethylphthalate	1.2E-11	1.3E-11	1.2E-11	1.3E-11	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-butylphthalate	1.9E-10	1.9E-10	1.9E-10	1.9E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Di-n-octylphthalate	1.2E-11	1.2E-11	2.2E-10	2.3E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoranthene	3.9E-11	4.0E-11	1.3E-09	1.3E-09	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	9.2E-12	9.5E-12	1.3E-10	1.4E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	2.0E-11	2.1E-11	2.5E-10	2.6E-10	No	6.1E+00	B2		IRIS	1.2E-10	1.3E-10	1.5E-09	1.6E-09
Naphthalene	8.7E-12	9.0E-12	8.4E-11	8.7E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	2.4E-11	2.5E-11	7.3E-10	7.5E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenol	1.2E-11	1.3E-11	1.2E-11	1.3E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	3.5E-11	3.6E-11	7.5E-10	7.8E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES													
4,4'-DDD	7.1E-13	7.4E-13	5.3E-12	5.5E-12	No	NA	B2		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDE	6.0E-13	6.2E-13	6.7E-13	6.9E-13	No	NA	B2		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDT	1.1E-12	1.2E-12	5.0E-11	5.2E-11	No	3.4E-01	B2	Liver	Diet/IRIS	3.9E-13	4.0E-13	1.7E-11	1.8E-11
Aldrin	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	4.5E-12	4.7E-12	4.5E-12	4.7E-12
Alpha-BHC	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	6.3E+00	B2	Liver carcinoma	Oral/IRIS	1.7E-12	1.7E-12	1.7E-12	1.7E-12
Alpha-chlordane	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.4E-12	3.6E-12	3.4E-12	3.6E-12
Beta-BHC	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	1.8E+00	B2	Hepatic nodules	Diet/IRIS	4.8E-13	4.9E-13	4.8E-13	4.9E-13
Delidrin	5.3E-13	5.5E-13	5.3E-13	5.5E-13	No	1.6E+01	B2	Liver carcinoma	Oral/IRIS	8.5E-12	8.8E-12	8.5E-12	8.8E-12
Delta-BHC	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	NA	NA		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan I	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan II	5.3E-13	5.5E-13	5.3E-13	5.5E-13	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan Sulfate	5.3E-13	5.5E-13	5.3E-13	5.5E-13	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin	5.3E-13	5.5E-13	5.3E-13	5.5E-13	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin ketone	5.3E-13	5.5E-13	5.3E-13	5.5E-13	No	NA				0.0E+00	0.0E+00	0.0E+00	0.0E+00
Gamma-BHC	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	NA	B2-C		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Gamma-chlordane	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.4E-12	3.6E-12	3.4E-12	3.6E-12
Heptachlor	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.2E-12	1.2E-12	1.2E-12	1.2E-12
Heptachlor epoxide	2.6E-13	2.7E-13	2.6E-13	2.7E-13	No	9.1E+00	B2	Hepatocellular carcinoma	IRIS/HEAST	2.4E-12	2.5E-12	2.4E-12	2.5E-12
Methoxychlor	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toxaphene	5.3E-12	5.5E-12	5.3E-12	5.5E-12	No	1.1E+00	B2	Hepatocellular carcinoma, neoplastic nodules	Diet/IRIS	5.8E-12	6.0E-12	5.8E-12	6.0E-12
PCB's													
Aroclor-1016	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aroclor-1221	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aroclor-1232	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aroclor-1242	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aroclor-1248	2.6E-12	2.7E-12	2.6E-12	2.7E-12	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aroclor-1254	6.1E-12	6.4E-12	1.7E-11	1.8E-11	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aroclor-1260	5.3E-12	5.5E-12	5.3E-12	5.5E-12	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00

TABLE A.5-12
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD (mg/kg/day)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)	
																9.1E+00	9.1E+00	CHILD MEAN
																5.0E+00	5.0E+00	ADULT MEAN
																6.4E+01	6.5E+01	CHILD MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER																3.6E+01	3.6E+01	ADULT MAX
INORGANICS																		
Antimony	1.6E-03	1.0E-03	1.3E-02	7.1E-03	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	4.6E+00	2.5E+00	3.2E+01	1.8E+01			
Arsenic	1.4E-03	7.8E-04	4.4E-03	2.4E-03	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		1.4E+00	7.8E-01	4.4E+00	2.4E+00			
Beryllium	1.1E-04	6.1E-05	6.3E-04	3.5E-04	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	2.2E-02	1.2E-02	1.3E-01	7.0E-02			
Cadmium	2.5E-04	1.4E-04	2.8E-03	1.6E-03	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	2.5E-01	1.4E-01	2.8E+00	1.6E+00			
Chromium	1.5E-03	8.3E-04	1.2E-02	6.8E-03	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	3.0E-01	1.7E-01	2.5E+00	1.4E+00			
Cobalt	2.9E-03	1.6E-03	3.7E-02	2.0E-02	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Copper	7.2E-03	4.0E-03	1.8E-01	8.7E-02	No	4E-02		Local GI irritation	HEAST			1.8E-01	9.9E-02	3.9E+00	2.2E+00			
Lead	4.0E-03	2.2E-03	2.4E-01	1.3E-01	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA			
Manganese	1.6E-01	8.8E-02	1.0E+00	5.8E-01	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	1.6E+00	8.8E-01	1.0E+01	5.8E+00			
Mercury	1.8E-05	9.8E-06	4.2E-04	2.3E-04	No	3E-04		Kidney effects	Oral/HEAST	1000		5.9E-02	3.3E-02	1.4E+00	7.7E-01			
Nickel	7.4E-03	4.1E-03	3.4E-02	1.9E-02	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Selenium	6.7E-05	3.7E-05	1.2E-04	6.8E-05	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	1.3E-02	7.4E-03	2.5E-02	1.4E-02			
Zinc	2.8E-02	1.5E-02	6.0E-01	3.3E-01	No	2E-01		Anemia	Therapeutic/HEAST	10		1.4E-01	7.7E-02	3.0E+00	1.7E+00			
VOLATILES																		
			0.0E+00															
1,1-Dichloroethene	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	1.5E-02	8.2E-03	2.8E-02	1.5E-02			
1,1,1-Trichloroethane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	1.5E-03	8.2E-04	2.8E-03	1.5E-03			
1,1,2-Trichloroethane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	3.3E-02	1.8E-02	6.2E-02	3.4E-02			
1,1,2,2-Tetrachloroethane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
1,2-Dichloroethane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
1,2-Dichloroethene	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		1.3E-02	7.3E-03	2.5E-02	1.4E-02			
1,2-Dichloropropane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
2-Hexanone	4.3E-04	2.4E-04	5.0E-04	2.7E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Benzene	1.3E-04	7.3E-05	3.0E-04	1.6E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Bromodichloromethane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	6.6E-03	3.7E-03	1.2E-02	6.8E-03			
Bromoform	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	6.6E-03	3.7E-03	1.2E-02	6.8E-03			
Carbon Tetrachloride	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	1.9E-01	1.0E-01	3.5E-01	2.0E-01			
Chlorobenzene	1.5E-04	8.5E-05	5.8E-04	3.0E-04	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		7.7E-03	4.3E-03	2.7E-02	1.5E-02			
Chloroform	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Chloromethane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	1.3E-02	7.3E-03	2.5E-02	1.4E-02			
Dibromochloromethane	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	6.6E-03	3.7E-03	1.2E-02	6.8E-03			
Ethylbenzene	1.5E-04	8.6E-05	6.0E-04	3.3E-04	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	1.5E-03	8.6E-04	6.0E-03	3.3E-03			
Styrene	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	6.6E-04	3.7E-04	1.2E-03	6.8E-04			
Tetrachloroethene	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	1.3E-02	7.3E-03	2.5E-02	1.4E-02			
Toluene	1.1E-04	6.1E-05	2.5E-04	1.4E-04	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	5.5E-04	3.1E-04	1.2E-03	6.8E-04			
Trichloroethene	1.3E-04	7.3E-05	2.5E-04	1.4E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Vinyl chloride	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Xylenes	3.0E-04	1.7E-04	7.9E-03	4.4E-03	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	1.5E-04	8.3E-05	4.0E-03	2.2E-03			

TABLE A.5-12 (cont.)
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD RFD (mg/kg/dy)	CONFD. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER															
SEMIVOLATILES															
1,4-Dichlorobenzene	2.5E-04	1.4E-04	5.0E-04	2.7E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	3.3E-04	1.8E-04	2.1E-03	1.2E-03	No	4E-03			NA/IRIS,HEAST			8.2E-02	4.6E-02	5.3E-01	2.9E-01
2,4-Dichlorophenol	2.5E-04	1.4E-04	0.0E+00	0.0E+00	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	8.3E-02	4.6E-02	0.0E+00	0.0E+00
2,4,5-Trichlorophenol	1.2E-03	6.8E-04	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	1.2E-02	6.8E-03	0.0E+00	0.0E+00
3,3-Dichlorobenzidine	5.3E-04	2.9E-04	9.9E-04	5.5E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	3.1E-04	1.7E-04	2.2E-03	1.2E-03	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	5.2E-03	2.9E-03	3.7E-02	2.1E-02
Acenaphthylene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Anthracene	2.5E-04	1.4E-04	5.0E-04	2.7E-04	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	8.4E-04	4.7E-04	1.7E-03	9.1E-04
Benzo(a)anthracene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Benzo(a)pyrene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Benzo(b)fluoranthene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Benzo(ghi)perylene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Benzo(k)fluoranthene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Bis(2ethylhexyl)phthalate	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.3E-02	7.3E-03	2.5E-02	1.4E-02
Butylbenzylphthalate	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	1.3E-03	7.3E-04	2.5E-03	1.4E-03
Chrysene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Benzo(ah)anthracene	3.0E-04	1.7E-04	9.4E-04	5.2E-04	No	4E-03			NA/IRIS,HEAST	1000		7.6E-02	4.2E-02	2.4E-01	1.3E-01
Dibenzofuran	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Diethylphthalate	1.9E-04	1.1E-04	5.0E-04	2.7E-04	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	2.4E-04	1.3E-04	6.2E-04	3.4E-04
Dimethylphthalate	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		2.7E-04	1.5E-04	5.0E-04	2.7E-04
Di-n-butylphthalate	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	2.7E-03	1.5E-03	5.0E-03	2.7E-03
Di-n-octylphthalate	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		1.3E-02	7.3E-03	2.5E-02	1.4E-02
Fluoranthene	2.4E-04	1.3E-04	5.0E-04	2.7E-04	No	4E-02	Low	Nephropathy,changes in liver weight	Gavage/IRIS	3000	1	6.1E-03	3.3E-03	1.2E-02	6.8E-03
Fluorene	3.0E-04	1.6E-04	1.2E-03	6.8E-04	No	4E-02	Low	Decreased RBC,packed cell vol and hemoglobin	Gavage/IRIS	3000	1	7.4E-03	4.1E-03	3.1E-02	1.7E-02
Indeno(123cd)pyrene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			6.8E-02	3.7E-02	1.2E-01	6.8E-02
Naphthalene	4.2E-04	2.3E-04	1.2E-02	6.6E-03	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.0E-01	5.7E-02	3.0E+00	1.6E+00
Phenanthrene	2.9E-04	1.6E-04	1.0E-03	5.8E-04	No	4E-03			NA/IRIS,HEAST			7.3E-02	4.0E-02	2.6E-01	1.4E-01
Phenol	2.5E-04	1.4E-04	0.0E+00	0.0E+00	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	4.1E-04	2.3E-04	0.0E+00	0.0E+00
Pyrene	2.3E-04	1.2E-04	5.0E-04	2.7E-04	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	7.5E-03	4.2E-03	1.7E-02	9.1E-03
PESTICIDES															
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA			
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-05	Medium	Liver toxicty	Diet/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Alpha-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-05			Diet/IRIS			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Beta-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Delidrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Delta-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endosulfan I	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan II	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endosulfan Sulfate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Endrin ketone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Gamma-BHC	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Gamma-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Heptachlor epoxide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Methoxychlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
PCB's															
Aroclor-1016	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1221	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1232	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1242	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1248	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1254	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA

TABLE A.5-13
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD (mg/kg/dy)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX (HI)	
																1.3E-02	CHILD MEAN
																2.7E-03	ADULT MEAN
																7.9E-02	CHILD MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																1.6E-02	ADULT MAX
VOLATILES																	
1,1-Dichloroethene	6.2E-06	1.3E-06	1.5E-07	3.1E-06	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	6.9E-06	1.4E-06	1.7E-05	3.4E-06		
1,1,1-Trichloroethane	6.6E-06	1.4E-06	1.6E-07	3.1E-06	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	7.6E-07	1.6E-07	1.7E-06	3.4E-07		
1,1,2-Trichloroethane	6.5E-06	1.3E-06	1.5E-07	3.1E-06	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.6E-05	3.3E-06	3.7E-05	7.7E-06		
1,1,2,2-Tetrachloroethane	7.7E-06	1.6E-06	2.0E-07	4.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloroethane	6.2E-06	1.3E-06	1.6E-07	3.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloroethene	6.2E-06	1.3E-06	1.5E-07	3.1E-06	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		6.2E-06	1.3E-06	1.5E-05	3.1E-06		
1,2-Dichloropropane	6.6E-06	1.4E-06	1.6E-07	3.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
2-Hexanone	1.5E-07	3.1E-06	4.1E-07	8.6E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Benzene	6.4E-06	1.3E-06	1.5E-07	3.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	6.4E-06	1.3E-06	1.5E-07	3.1E-06	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	3.2E-06	6.7E-07	7.4E-06	1.5E-06		
Bromoform	6.4E-06	1.3E-06	1.5E-07	3.1E-06	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	3.2E-06	6.7E-07	7.4E-06	1.5E-06		
Carbon Tetrachloride	6.5E-06	1.3E-06	1.5E-07	3.1E-06	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	9.2E-05	1.9E-05	2.1E-04	4.4E-05		
Chlorobenzene	7.2E-06	1.5E-06	2.0E-07	4.1E-06	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		3.6E-06	7.4E-07	9.9E-06	2.1E-06		
Chloroform	1.3E-07	2.6E-06	2.8E-07	5.8E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Chloromethane	6.2E-06	1.3E-06	1.5E-07	3.1E-06	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	6.2E-06	1.3E-06	1.5E-05	3.1E-06		
Dibromochloromethane	6.4E-06	1.3E-06	1.5E-07	3.1E-06	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	3.2E-06	6.7E-07	7.4E-06	1.5E-06		
Ethylbenzene	7.2E-06	1.5E-06	2.0E-07	4.1E-06	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	7.2E-07	1.5E-07	2.0E-06	4.1E-07		
Styrene	7.7E-06	1.6E-06	2.0E-07	4.1E-06	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	3.8E-07	7.9E-08	9.9E-07	2.1E-07		
Tetrachloroethene	6.8E-06	1.4E-06	2.0E-07	4.1E-06	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	6.8E-06	1.4E-06	2.0E-05	4.1E-06		
Toluene	6.6E-06	1.4E-06	2.0E-07	4.1E-06	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	3.3E-07	6.8E-08	9.9E-07	2.1E-07		
Trichloroethene	6.4E-06	1.3E-06	1.5E-07	3.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Vinyl chloride	1.3E-07	2.6E-06	2.8E-07	5.8E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Xylenes	7.7E-06	1.6E-06	2.0E-07	4.1E-06	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	3.8E-06	7.9E-09	9.9E-06	2.1E-06		

TABLE A.5-13 (cont.)
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD RFD (mg/kg/dy)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL															
SEMIVOLATILES															
1,4-Dichlorobenzene	7.3E-07	1.5E-07	7.3E-07	1.5E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	4.4E-07	9.1E-08	1.8E-08	3.6E-07	No	4E-03			NA/IRIS,HEAST			1.1E-04	2.3E-05	4.5E-04	9.4E-05
2,4-Dichlorophenol	7.3E-07	1.5E-07	7.3E-07	1.5E-07	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	2.4E-04	5.0E-05	2.4E-04	5.0E-05
2,4,5-Trichlorophenol	3.6E-06	7.5E-07	3.6E-08	7.5E-07	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	3.6E-05	7.5E-06	3.6E-05	7.5E-06
3,3-Dichlorobenzidine	1.3E-06	2.6E-07	2.6E-05	5.5E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	5.3E-07	1.1E-07	6.3E-08	1.3E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	8.8E-06	1.8E-06	1.0E-04	2.2E-05
Acenaphthylene	5.8E-07	1.2E-07	7.3E-07	1.5E-07	No	4E-03			NA/IRIS,HEAST			1.4E-04	2.9E-05	1.8E-04	3.8E-05
Anthracene	6.4E-07	1.3E-07	1.1E-05	2.3E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	2.1E-06	4.4E-07	3.7E-05	7.8E-06
Benzo(a)anthracene	1.1E-06	2.4E-07	3.1E-05	6.5E-06	No	4E-03			NA/IRIS,HEAST			2.8E-04	6.0E-05	7.9E-03	1.6E-03
Benzo(a)pyrene	1.4E-06	2.9E-07	2.6E-05	5.5E-06	No	4E-03			NA/IRIS,HEAST			3.5E-04	7.2E-05	6.6E-03	1.4E-03
Benzo(b)fluoranthene	1.6E-06	3.2E-07	2.5E-05	5.1E-06	No	4E-03			NA/IRIS,HEAST			3.9E-04	8.1E-05	6.2E-03	1.3E-03
Benzo(ghi)perylene	1.2E-06	2.5E-07	1.4E-05	2.9E-06	No	4E-03			NA/IRIS,HEAST			3.0E-04	6.3E-05	3.5E-03	7.2E-04
Benzo(k)fluoranthene	1.4E-06	2.9E-07	2.3E-05	4.8E-06	No	4E-03			NA/IRIS,HEAST			3.5E-04	7.2E-05	5.8E-03	1.2E-03
Bis(2ethylhexyl)phthalate	6.1E-07	1.3E-07	1.3E-05	2.7E-06	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	3.0E-05	6.3E-06	6.5E-04	1.4E-04
Butylbenzylphthalate	4.6E-07	9.6E-08	1.3E-05	2.7E-06	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	2.3E-06	4.8E-07	6.5E-06	1.4E-06
Chrysene	1.4E-06	2.8E-07	3.0E-05	6.2E-06	No	4E-03			NA/IRIS,HEAST			3.4E-04	7.0E-05	7.4E-03	1.5E-03
Benzo(ah)anthracene	4.5E-07	9.4E-08	4.6E-06	9.6E-07	No	4E-03			NA/IRIS,HEAST	1000		1.1E-04	2.3E-05	1.2E-03	2.4E-04
Dibenzofuran	7.1E-07	1.5E-07	1.3E-05	2.7E-06	No	4E-03			NA/IRIS,HEAST			1.8E-04	3.7E-05	3.3E-03	6.8E-04
Diethylphthalate	5.4E-07	1.1E-07	7.3E-07	1.5E-07	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	6.7E-07	1.4E-07	9.1E-07	1.9E-07
Dimethylphthalate	7.3E-07	1.5E-07	7.3E-07	1.5E-07	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		7.3E-07	1.5E-07	7.3E-07	1.5E-07
Di-n-butylphthalate	1.1E-06	2.3E-08	1.1E-05	2.3E-06	No	1E-01	Low	increased Mortality	Diet/IRIS	1000	1	1.1E-04	2.3E-05	1.1E-04	2.3E-05
Di-n-octylphthalate	7.0E-07	1.4E-07	1.3E-05	2.7E-06	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		3.5E-05	7.2E-06	6.5E-04	1.4E-04
Fluoranthene	2.3E-06	4.8E-07	7.6E-05	1.6E-05	No	4E-02	Low	Nephropathy,changes in liver weight	Gavage/IRIS	3000	1	5.8E-05	1.2E-05	1.9E-03	3.9E-04
Fluorene	5.4E-07	1.1E-07	7.8E-08	1.6E-06	No	4E-02	Low	Decreased RBC, packed cell vol and hemoglobin	Gavage/IRIS	3000	1	1.4E-05	2.8E-06	1.9E-04	4.0E-05
Indeno(123cd)pyrene	1.2E-06	2.5E-07	1.5E-05	3.0E-06	No	4E-03			NA/IRIS,HEAST			3.0E-04	6.1E-05	3.7E-03	7.6E-04
Naphthalene	5.2E-07	1.1E-07	5.0E-08	1.0E-06	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.3E-04	2.7E-05	1.2E-03	2.6E-04
Phenanthrene	1.4E-06	2.9E-07	4.3E-05	8.9E-06	No	4E-03			NA/IRIS,HEAST			3.5E-04	7.3E-05	1.1E-02	2.2E-03
Phenol	7.3E-07	1.5E-07	7.3E-07	1.5E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	1.2E-06	2.5E-07	1.2E-06	2.5E-07
Pyrene	2.1E-06	4.3E-07	4.5E-05	9.2E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	6.9E-05	1.4E-05	1.5E-03	3.1E-04
PESTICIDES															
4,4'-DDD	4.2E-08	8.7E-09	3.1E-07	6.5E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDE	3.5E-08	7.3E-09	4.0E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	6.6E-08	1.4E-08	3.0E-08	6.2E-07	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.4E-04	2.8E-05	6.0E-03	1.2E-03
Aldrin	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	3.0E-05	Medium	Liver toxicity	Diet/IRIS	1000	1	5.2E-04	1.1E-04	5.2E-04	1.1E-04
Alpha-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Alpha-chlordane	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	6.0E-05			Diet/IRIS			2.6E-03	5.4E-04	2.6E-03	5.4E-04
Beta-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Delidrin	3.1E-08	6.5E-09	3.1E-08	6.5E-09	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	6.3E-04	1.3E-04	6.3E-04	1.3E-04
Delta-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endosulfan I	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	3.1E-04	6.5E-05	3.1E-04	6.5E-05
Endosulfan II	3.1E-08	6.5E-09	3.1E-08	6.5E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	6.3E-04	1.3E-04	6.3E-04	1.3E-04
Endosulfan Sulfate	3.1E-08	6.5E-09	3.1E-08	6.5E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endrin	3.1E-08	6.5E-09	3.1E-08	6.5E-09	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	1.0E-04	2.2E-05	1.0E-04	2.2E-05
Endrin ketone	3.1E-08	6.5E-09	3.1E-08	6.5E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Gamma-BHC	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	5.2E-05	1.1E-05	5.2E-05	1.1E-05
Gamma-chlordane	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	2.6E-03	5.4E-04	2.6E-03	5.4E-04
Heptachlor	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	3.1E-05	6.5E-06	3.1E-05	6.5E-06
Heptachlor epoxide	1.6E-08	3.3E-09	1.6E-08	3.3E-09	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	1.2E-03	2.5E-04	1.2E-03	2.5E-04
Methoxychlor	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	5.0E-03	Low	Excessive loss of litters	Diet/IRIS	1000	1	3.1E-05	6.5E-06	3.1E-05	6.5E-06
Toxaphene	3.1E-07	6.5E-08	3.1E-07	6.5E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
PCB's															
Aroclor-1016	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1221	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1232	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1242	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1248	1.6E-07	3.3E-08	1.6E-07	3.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1254	3.6E-07	7.5E-08	1.0E-06	2.1E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1260	3.1E-07	6.5E-08	3.1E-07	6.5E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA

TABLE A.6 -14
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD (mg/kg/dy)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX (HI)	
																5.1E-01	CHILD MEAN
																5.3E-02	ADULT MEAN
																7.7E+00	CHILD MAX
																8.0E-01	ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST																	
INORGANICS																	
Antimony	9.0E-05	9.4E-06	1.2E-03	1.3E-04	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	2.3E-01	2.3E-02	3.0E+00	3.1E-01		
Arsenic	6.9E-05	7.1E-06	2.6E-04	2.7E-05	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		6.9E-02	7.1E-03	2.6E-01	2.7E-02		
Beryllium	6.2E-06	6.4E-07	2.2E-05	2.3E-06	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	1.2E-03	1.3E-04	4.5E-03	4.7E-04		
Cadmium	9.7E-06	1.0E-06	2.9E-04	3.0E-05	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	9.7E-03	1.0E-03	2.9E-01	3.0E-02		
Chromium	2.4E-04	2.5E-05	9.2E-04	9.5E-05	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	4.8E-02	5.0E-03	1.8E-01	1.9E-02		
Cobalt	1.2E-04	1.3E-05	2.7E-04	2.9E-05	No	NA			NA/IRIS,HEAST			NNA	NA	NA	NA		
Copper	1.1E-03	1.2E-04	8.0E-02	8.3E-03	No	4E-02		Local GI irritation	HEAST			2.8E-02	2.9E-03	2.0E+00	2.1E-01		
Lead	8.5E-04	4.1E-05	1.3E-02	8.1E-04	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA		
Manganese	5.1E-03	5.2E-04	9.0E-03	9.3E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	5.1E-02	5.2E-03	9.0E-02	9.3E-03		
Mercury	1.3E-06	1.4E-07	2.1E-05	2.2E-06	No	3E-04		Kidney effects	Oral/HEAST	1000		4.4E-03	4.5E-04	7.1E-02	7.3E-03		
Nickel	2.8E-04	3.0E-05	1.4E-03	1.4E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Selenium	4.7E-06	4.9E-07	2.6E-05	2.7E-06	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	9.4E-04	9.8E-05	5.3E-03	5.5E-04		
Zinc	3.2E-03	3.4E-04	2.5E-01	2.6E-02	No	2E-01		Anemia	Therapeutic/HEAST	10		1.6E-02	1.7E-03	1.3E+00	1.3E-01		
VOLATILES																	
1,1-Dichloroethene	4.9E-06	5.1E-06	1.2E-07	1.2E-06	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	5.5E-06	5.7E-07	1.3E-05	1.4E-06		
1,1,1-Trichloroethane	5.4E-06	5.6E-06	1.2E-07	1.2E-06	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	6.0E-07	6.3E-08	1.3E-06	1.4E-07		
1,1,2-Trichloroethane	5.2E-06	5.4E-06	1.2E-07	1.2E-06	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.3E-05	1.3E-06	3.0E-05	3.1E-06		
1,1,2,2-Tetrachloroethane	6.1E-06	6.4E-06	1.6E-07	1.6E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloroethane	4.9E-06	5.1E-06	1.2E-07	1.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloroethene	4.9E-06	5.1E-06	1.2E-07	1.2E-06	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		4.9E-06	5.1E-07	1.2E-05	1.2E-06		
1,2-Dichloropropane	5.3E-06	5.5E-06	1.2E-07	1.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
2-Hexanone	1.2E-07	1.3E-06	3.3E-07	3.4E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Benzene	5.2E-06	5.3E-06	1.2E-07	1.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	5.2E-06	5.3E-06	1.2E-07	1.2E-06	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	2.6E-06	2.7E-07	6.0E-06	6.2E-07		
Bromoform	5.2E-06	5.3E-06	1.2E-07	1.2E-06	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	2.6E-06	2.7E-07	6.0E-06	6.2E-07		
Carbon Tetrachloride	5.2E-06	5.4E-06	1.2E-07	1.2E-06	No	7E-04	Medium	Liver Lesions	Gavage/IRIS	1000	1	7.4E-06	7.7E-06	1.7E-04	1.8E-05		
Chlorobenzene	5.7E-06	5.9E-06	1.6E-07	1.6E-06	No	2E-02	Medium	Liver and Kidney effects	Oral/IRIS,HEAST	1000		2.9E-06	3.0E-07	7.9E-06	8.2E-07		
Chloroform	1.0E-07	1.0E-06	2.2E-07	2.3E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Chloromethane	4.9E-06	5.1E-06	1.2E-07	1.2E-06	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	4.9E-06	5.1E-07	1.2E-05	1.2E-06		
Dibromochloromethane	5.2E-06	5.3E-06	1.2E-07	1.2E-06	No	2E-02	Medium	Hepatic Lesions	Gavage/IRIS	1000	1	2.6E-06	2.7E-07	6.0E-06	6.2E-07		
Ethylbenzene	5.7E-06	5.9E-06	1.6E-07	1.6E-06	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	5.7E-07	5.9E-08	1.6E-06	1.6E-07		
Styrene	6.1E-06	6.4E-06	1.6E-07	1.6E-06	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	3.1E-07	3.2E-08	7.9E-07	8.2E-08		
Tetrachloroethene	5.4E-06	5.6E-06	1.6E-07	1.6E-06	No	1E-02	Medium	Hepatotoxicity weight Gain	Gavage/IRIS	100	1	5.4E-06	5.6E-07	1.6E-05	1.6E-06		
Toluene	5.2E-06	5.4E-06	1.6E-07	1.6E-06	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	2.6E-07	2.7E-08	7.9E-07	8.2E-08		
Trichloroethene	5.2E-06	5.3E-06	1.2E-07	1.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Vinyl chloride	1.0E-07	1.0E-06	2.2E-07	2.3E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Xylenes	6.1E-06	6.4E-06	1.6E-07	1.6E-06	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	3.1E-06	3.2E-09	7.9E-06	8.2E-09		

TABLE A.5-14 (cont.)
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD (mg/kg/dy)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST															
SEMIVOLATILES															
1,4-Dichlorobenzene	5.8E-06	6.0E-07	5.8E-06	6.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	3.5E-06	3.6E-07	1.5E-05	1.5E-06	No	4E-03			NA/IRIS,HEAST			8.8E-04	9.1E-05	3.6E-03	3.8E-04
2,4-Dichlorophenol	5.8E-06	6.0E-07	5.8E-06	6.0E-07	No	3E-03	Low	Changed Hypersensitivity response	Water/IRIS	100	1	1.9E-03	2.0E-04	1.9E-03	2.0E-04
2,4,5-Trichlorophenol	2.9E-05	3.0E-06	2.9E-05	3.0E-06	No	1E-01	Low	Liver and Kidney pathology	Diet/IRIS	1000	1	2.9E-04	3.0E-05	2.9E-04	3.0E-05
3,3-Dichlorobenzidine	1.0E-05	1.1E-06	2.1E-04	2.2E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	4.2E-06	4.4E-07	5.0E-05	5.2E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	7.1E-05	7.3E-06	8.4E-04	8.7E-05
Acenaphthylene	4.5E-06	4.7E-07	5.6E-06	6.0E-07	No	4E-03			NA/IRIS,HEAST			1.1E-03	1.2E-04	1.5E-03	1.5E-04
Anthracene	5.1E-06	5.3E-07	9.0E-05	9.3E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	1.7E-05	1.8E-06	3.0E-04	3.1E-05
Benzo(a)anthracene	9.2E-06	9.5E-07	2.5E-04	2.6E-05	No	4E-03			NA/IRIS,HEAST			2.3E-03	2.4E-04	6.3E-02	6.5E-03
Benzo(a)pyrene	1.1E-05	1.1E-06	2.1E-04	2.2E-05	No	4E-03			NA/IRIS,HEAST			2.8E-03	2.9E-04	5.3E-02	5.5E-03
Benzo(b)fluoranthene	1.2E-05	1.3E-06	2.0E-04	2.1E-05	No	4E-03			NA/IRIS,HEAST			3.1E-03	3.2E-04	5.0E-02	5.1E-03
Benzo(ghi)perylene	9.7E-06	1.0E-06	1.1E-04	1.2E-05	No	4E-03			NA/IRIS,HEAST			2.4E-03	2.5E-04	2.8E-02	2.9E-03
Benzo(k)fluoranthene	1.1E-05	1.2E-06	1.9E-04	1.9E-05	No	4E-03			NA/IRIS,HEAST			2.8E-03	2.9E-04	4.8E-02	4.8E-03
Bis(2ethylhexyl)phthalate	4.9E-06	5.0E-07	1.0E-04	1.1E-05	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.4E-04	2.5E-05	5.2E-03	5.4E-04
Butylbenzylphthalate	3.7E-06	3.8E-07	1.0E-04	1.1E-05	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	1.9E-05	1.9E-06	5.2E-04	5.4E-05
Chrysene	1.1E-05	1.1E-06	2.4E-04	2.5E-05	No	4E-03			NA/IRIS,HEAST			2.7E-03	2.8E-04	6.0E-02	6.2E-03
Benzo(ah)anthracene	3.6E-06	3.8E-07	3.7E-05	3.8E-06	No	4E-03			NA/IRIS,HEAST	1000		9.1E-04	9.4E-05	9.3E-03	9.6E-04
Dibenzofuran	5.7E-06	5.9E-07	1.0E-04	1.1E-05	No	4E-03			NA/IRIS,HEAST			1.4E-03	1.5E-04	2.6E-02	2.7E-03
Diethylphthalate	4.3E-06	4.4E-07	5.6E-06	6.0E-07	No	8E-01	Low	Decreased growth and food consumption rate	Diet/IRIS	1000	1	5.4E-06	5.6E-07	7.3E-06	7.5E-07
Dimethylphthalate	5.8E-06	6.0E-07	5.8E-06	6.0E-07	No	1E+00		Minor effect on growth and nephritic involvement	Diet/HEAST	100		5.8E-06	6.0E-07	5.8E-06	6.0E-07
Di-n-butylphthalate	8.9E-05	9.2E-06	8.9E-05	9.2E-06	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	8.9E-04	9.2E-05	8.9E-04	9.2E-05
Di-n-octylphthalate	5.6E-06	5.8E-07	1.0E-04	1.1E-05	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		2.8E-04	2.9E-05	5.2E-03	5.4E-04
Fluoranthene	1.8E-05	1.9E-06	6.1E-04	6.3E-05	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effect	Gavage/IRIS	3000	1	4.6E-04	4.8E-05	1.5E-02	1.6E-03
Fluorene	4.4E-06	4.5E-07	6.2E-05	6.4E-06	No	4E-02	Low	Decreased RBC, packed cell vol and hemoglobin	Gavage/IRIS	3000	1	1.1E-04	1.1E-05	1.6E-03	1.6E-04
Indeno(123cd)pyrene	9.5E-06	9.8E-07	1.2E-04	1.2E-05	No	4E-03			NA/IRIS,HEAST			2.4E-03	2.5E-04	2.9E-02	3.0E-03
Naphthalene	4.1E-06	4.3E-07	4.0E-05	4.1E-06	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.0E-03	1.1E-04	9.9E-03	1.0E-03
Phenanthrene	1.1E-05	1.2E-06	3.4E-04	3.6E-05	No	4E-03			NA/HEAST			2.8E-03	2.9E-04	8.6E-02	8.9E-03
Phenol	5.8E-06	6.0E-07	5.8E-06	6.0E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	9.7E-06	1.0E-06	9.7E-06	1.0E-06
Pyrene	1.7E-06	1.7E-06	3.6E-04	3.7E-05	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	5.6E-04	5.8E-05	1.2E-02	1.2E-03
PESTICIDES															
4,4'-DDD	1.0E-07	1.0E-08	7.5E-07	7.8E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDE	8.5E-08	8.8E-09	9.5E-08	9.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	1.6E-07	1.7E-08	7.1E-06	7.4E-07	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	3.3E-04	3.4E-05	1.4E-02	1.5E-03
Aldrin	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	3.0E-05	Medium	Liver toxicty	Diet/IRIS	1000	1	1.3E-03	1.3E-04	1.3E-03	1.3E-04
Alpha-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Alpha-chlordane	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	6.0E-05			Diet/IRIS			6.3E-03	6.5E-04	6.3E-03	6.5E-04
Beta-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Dieldrin	7.5E-08	7.8E-09	7.5E-08	7.8E-09	No	5.0E-05	Medium	Liver lesions	Diet/IRIS	100	1	1.5E-03	1.6E-04	1.5E-03	1.6E-04
Delta-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endosulfan I	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	7.5E-04	7.8E-05	7.5E-04	7.8E-05
Endosulfan II	7.5E-08	7.8E-09	7.5E-08	7.8E-09	No	5.0E-05	Medium	Kidney toxicity	Oral/IRIS	3000	1	1.5E-03	1.6E-04	1.5E-03	1.6E-04
Endosulfan Sulfate	7.5E-08	7.8E-09	7.5E-08	7.8E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endrin	7.5E-08	7.8E-09	7.5E-08	7.8E-09	No	3.0E-04	Medium	Mild histological lesions in liver	Oral/IRIS	100	1	2.5E-04	2.6E-05	2.5E-04	2.6E-05
Endrin ketone	7.5E-08	7.8E-09	7.5E-08	7.8E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Gamma-BHC	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	3.0E-04	Medium	Liver and kidney toxicity	Diet/IRIS	1000	1	1.3E-04	1.3E-05	1.3E-04	1.3E-05
Gamma-chlordane	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	6.0E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	1000	1	6.3E-03	6.5E-04	6.3E-03	6.5E-04
Heptachlor	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	5.0E-04	Low	Liver weight increases in males	Diet/IRIS	300	1	7.5E-05	7.8E-06	7.5E-05	7.8E-06
Heptachlor epoxide	3.8E-08	3.9E-09	3.8E-08	3.9E-09	No	1.3E-05	Low	Increased liver to body weight ratio	Diet/IRIS	1000	1	2.9E-03	3.0E-04	2.9E-03	3.0E-04
Methoxychlor	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	5.0E-03	Low	Exsessive loss of litters	Diet/IRIS	1000	1	7.5E-05	7.8E-06	7.5E-05	7.8E-06
Toxaphene	7.5E-07	7.8E-08	7.5E-07	7.8E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
PCB's															
Aroclor-1016	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1221	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1232	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1242	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1248	3.8E-07	3.9E-08	3.8E-07	3.9E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1254	8.7E-07	9.0E-08	2.4E-06	2.5E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1260	7.5E-07	7.8E-08	7.5E-07	7.8E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA

TABLE A.5-15
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD (mg/kg/dy)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY/ ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX (HI)	
																1.8E-02	CHILD MEAN
																3.7E-03	ADULT MEAN
																1.0E-01	CHILD MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS																2.1E-02	ADULT MAX
VOLATILES																	
t1,1-Dichloroethene	1.2E-04	2.6E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
t1,1,1-Trichloroethane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	3.0E-01		Hepatotoxicity	HEAST	1000		2.2E-04	4.6E-05	4.1E-04	8.6E-05		
t1,1,2-Trichloroethane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
t1,1,2,2-Tetrachloroethane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
t1,2-Dichloroethane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
t1,2-Dichloroethene	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
t1,2-Dichloropropane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
t2-Hexanone	2.2E-04	4.6E-05	2.6E-04	5.1E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tBenzene	6.6E-05	1.4E-05	1.5E-04	3.1E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tBromodichloromethane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tBromoform	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tCarbon Tetrachloride	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tChlorobenzene	7.7E-05	1.6E-05	2.7E-04	5.7E-05	No	5.0E-03		Liver and kidney effects	HEAST	10000		1.5E-02	3.2E-03	5.5E-02	1.1E-02		
tChloroform	1.3E-04	2.8E-05	2.5E-04	5.1E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tChloromethane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tDibromochloromethane	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tEthylbenzene	7.7E-05	1.6E-05	3.0E-04	6.2E-05	No	3.0E-01	Low	Developmental toxicity	IRIS	300	1	2.6E-04	5.3E-05	9.9E-04	2.1E-04		
tStyrene	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tTetrachloroethene	6.6E-06	1.4E-06	1.2E-04	2.6E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tToluene	5.5E-05	1.1E-05	1.2E-04	2.6E-05	No	8.0E-01		CNS effects, eyes and nose irritation	HEAST	100		9.2E-05	1.9E-05	2.1E-04	4.3E-05		
tTrichloroethene	6.6E-05	1.4E-05	1.2E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tVinyl chloride	1.3E-04	2.8E-05	2.5E-04	5.1E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
tXylenes	1.5E-04	3.1E-05	4.0E-03	8.2E-04	No	9.0E-02		CNS effects, eyes and nose irritation	HEAST	100		1.7E-03	3.5E-04	4.4E-02	9.1E-03		

TABLE A.5-16
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD (mg/kg/dy)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX (HI)
																1.3E-03 CHILD MEAN
																2.6E-04 ADULT MEAN
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST																2.4E-03 CHILD MAX
																5.1E-04 ADULT MAX
INORGANICS																
Antimony	2.2E-09	4.6E-10	3.0E-08	6.2E-09	No	4.0E-04						5.6E-06	1.2E-06	7.4E-05	1.6E-05	
Arsenic	1.7E-09	3.5E-10	6.5E-09	1.3E-09	No	1.0E-03						1.7E-06	3.5E-07	6.5E-06	1.3E-06	
Beryllium	1.5E-10	3.2E-11	5.8E-10	1.1E-10	No	5.0E-03						3.1E-08	6.3E-09	1.1E-07	2.3E-08	
Cadmium	2.4E-10	5.0E-11	7.1E-09	1.5E-09	No	5.0E-04						4.8E-07	9.9E-08	1.4E-06	2.9E-08	
Chromium	6.0E-09	1.2E-09	2.3E-08	4.7E-09	No	6.0E-04		Nasal mucosa atrophy	HEAST	300		9.9E-06	2.1E-06	3.8E-05	7.8E-06	
Cobalt	3.1E-09	6.3E-10	6.6E-09	1.4E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Copper	2.8E-09	5.7E-09	2.0E-08	4.1E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Lead	3.2E-08	6.7E-09	6.4E-07	1.3E-07	No	NA		CNS effects	NA/IRIS,HEAST			NA	NA	NA	NA	
Manganese	1.2E-07	2.6E-08	2.2E-07	4.6E-08	No	1.0E-04	Medium	Increased prevalence of respiratory disease	Occupational/IRIS	300	3	1.2E-03	2.6E-04	2.2E-03	4.6E-04	
Mercury	3.2E-11	6.7E-12	5.2E-10	1.1E-10	No	9.0E-06		Neurotoxicity	Occupational/HEAS	30		3.6E-06	7.5E-07	5.8E-05	1.2E-05	
Nickel	7.0E-09	1.5E-09	3.4E-08	7.1E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Selenium	1.2E-10	2.4E-11	6.5E-10	1.3E-10	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Zinc	8.0E-08	1.7E-08	6.2E-08	1.3E-08	No	2.0E-01						4.0E-07	8.3E-08	3.1E-05	6.5E-06	
VOLATILES																
1,1-Dichloroethene	1.2E-12	2.5E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,1,1-Trichloroethane	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	3.0E-01		Hepatotoxicity	HEAST	1000		4.5E-12	9.2E-13	9.6E-12	2.0E-12	
1,1,2-Trichloroethane	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	1.5E-12	3.1E-13	3.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloroethane	1.2E-12	2.5E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloroethene	1.2E-12	2.5E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloropropane	1.3E-12	2.7E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
2-Hexanone	3.0E-12	6.2E-13	6.1E-12	1.7E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Benzene	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromodichloromethane	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromoform	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Carbon Tetrachloride	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Chlorobenzene	1.4E-12	2.9E-13	3.9E-12	6.1E-13	No	5.0E-03		Liver and kidney effects	HEAST	10000		2.8E-10	5.8E-11	7.8E-10	1.6E-10	
Chloroform	2.5E-12	5.1E-13	5.5E-12	1.1E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Chloromethane	1.2E-12	2.5E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Dibromochloromethane	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Ethylbenzene	1.4E-12	2.9E-13	3.9E-12	6.1E-13	No	3.0E-01	Low	Developmental toxicity	IRIS	300	1	4.7E-12	9.7E-13	1.3E-11	2.7E-12	
Styrene	1.5E-12	3.1E-13	3.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Tetrachloroethene	1.3E-12	2.6E-13	3.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Toluene	1.3E-12	2.7E-13	3.9E-12	6.1E-13	No	6.0E-01		CNS effects, eyes and nose irritation	HEAST	100		2.2E-12	4.5E-13	6.5E-12	1.3E-12	
Trichloroethene	1.3E-12	2.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Vinyl chloride	2.5E-12	5.1E-13	5.5E-12	1.1E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Xylenes	1.5E-12	3.1E-13	3.9E-12	6.1E-13	No	2.0E-02		CNS effects, eyes and nose irritation	HEAST	100		1.7E-11	3.5E-12	4.3E-11	9.0E-12	

TABLE A.5-16 (cont.)
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
MCALLISTER POINT LANDFILL

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABS.	RFD (mg/kg/dy)	CONFID. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST															
SEMIVOLATILES															
1,4-Dichlorobenzene	1.4E-10	3.0E-11	1.4E-10	3.0E-11	No	2.0E-01		Liver and kidney effects	HEAST	100		7.2E-10	1.5E-10	7.2E-10	1.5E-10
2-Methylnaphthalene	8.6E-11	1.8E-11	3.6E-10	7.4E-11	No	4.0E-03			NA/IRIS,HEAST			2.2E-08	4.5E-09	8.9E-08	1.9E-08
2,4-Dichlorophenol	1.4E-10	3.0E-11	1.4E-10	3.0E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,4,5-Trichlorophenol	7.2E-10	1.5E-10	7.2E-10	1.5E-10	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	2.5E-10	5.2E-11	5.2E-09	1.1E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	1.0E-10	2.2E-11	1.2E-08	2.6E-10	No	6.0E-02						1.7E-09	3.6E-10	2.1E-08	4.3E-09
Acenaphthylene	1.1E-10	2.3E-11	1.4E-10	3.0E-11	No	4.0E-03			NA/IRIS,HEAST			2.8E-08	5.7E-09	3.6E-08	7.4E-09
Anthracene	1.3E-10	2.6E-11	2.2E-09	4.6E-10	No	3.0E-01						4.2E-10	8.6E-11	7.4E-09	1.5E-09
Benzo(a)anthracene	2.3E-10	4.7E-11	6.2E-09	1.3E-08	No	4.0E-03			NA/IRIS,HEAST			5.7E-08	1.2E-08	1.5E-06	3.2E-07
Benzo(a)pyrene	2.7E-10	5.6E-11	5.2E-09	1.1E-09	No	4.0E-03			NA/IRIS,HEAST			6.8E-08	1.4E-08	1.3E-06	2.7E-07
Benzo(b)fluoranthene	3.1E-10	6.4E-11	4.9E-09	1.0E-09	No	4.0E-03			NA/IRIS,HEAST			7.7E-08	1.6E-08	1.2E-06	2.5E-07
Benzo(ghi)perylene	2.4E-10	5.0E-11	2.7E-09	5.7E-10	No	4.0E-03			NA/IRIS,HEAST			6.0E-08	1.2E-08	6.8E-07	1.4E-07
Benzo(k)fluoranthene	2.7E-10	5.7E-11	4.6E-09	9.4E-10	No	4.0E-03			NA/IRIS,HEAST			6.8E-08	1.4E-08	1.1E-06	2.4E-07
Bis(2-ethylhexyl)phthalate	1.2E-10	2.5E-11	2.6E-09	5.3E-10	No	2.0E-02						6.0E-09	1.2E-09	1.3E-07	2.7E-08
Butylbenzylphthalate	9.1E-11	1.9E-11	2.6E-09	5.3E-10	No	2.0E-01						4.6E-10	9.5E-11	1.3E-08	2.7E-09
Chrysene	2.7E-10	5.5E-11	5.9E-09	1.2E-09	No	4.0E-03			NA/IRIS,HEAST			6.7E-08	1.4E-08	1.5E-06	3.0E-07
Dibenzo(ah)anthracene	8.9E-11	1.8E-11	9.1E-10	1.9E-10	No	4.0E-03			NA/IRIS,HEAST			2.2E-08	4.6E-09	2.3E-07	4.7E-08
Dibenzofuran	1.4E-10	2.9E-11	2.6E-09	5.3E-10	No	4.0E-03			NA/IRIS,HEAST			3.5E-08	7.2E-09	6.4E-07	1.3E-07
Diethylphthalate	1.1E-10	2.2E-11	1.4E-10	3.0E-11	No	8.0E-01						1.3E-10	2.7E-11	1.8E-10	3.7E-11
Dimethylphthalate	1.4E-10	3.0E-11	1.4E-10	3.0E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Di-n-butylphthalate	2.2E-09	4.5E-10	2.2E-09	4.5E-10	No	1.0E-01						2.2E-08	4.5E-09	2.2E-08	4.5E-09
Di-n-octylphthalate	1.4E-10	2.8E-11	2.6E-09	5.3E-10	No	2.0E-02						6.8E-09	1.4E-09	1.3E-07	2.7E-08
Fluoranthene	4.5E-10	9.4E-11	1.5E-08	3.1E-09	No	4.0E-02						1.1E-08	2.3E-09	3.7E-07	7.8E-08
Fluorene	1.1E-10	2.2E-11	1.5E-09	3.2E-10	No	4.0E-02						2.7E-09	5.5E-10	3.8E-08	7.9E-09
Indeno(123cd)pyrene	2.3E-10	4.8E-11	2.9E-09	6.0E-10	No	4.0E-03			NA/IRIS,HEAST			5.8E-08	1.2E-08	7.2E-07	1.5E-07
Naphthalene	1.0E-10	2.1E-11	9.8E-10	2.0E-10	No	4.0E-03						2.5E-08	5.3E-09	2.4E-07	5.1E-08
Phenanthrene	2.8E-10	5.7E-11	8.5E-09	1.8E-09	No	4.0E-03			NA/IRIS,HEAST			6.9E-08	1.4E-08	2.1E-06	4.4E-07
Phenol	1.4E-10	3.0E-11	1.4E-10	3.0E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Pyrene	4.1E-10	8.5E-11	8.8E-09	1.8E-09	No	3.0E-02						1.4E-08	2.8E-09	2.9E-07	6.1E-08
PESTICIDES															
4,4'-DDD	8.3E-12	1.7E-12	6.2E-11	1.3E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDE	7.0E-12	1.4E-12	7.8E-12	1.6E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	1.3E-11	2.8E-12	5.9E-10	1.2E-10	No	5.0E-04						2.7E-08	5.6E-09	1.2E-06	2.4E-07
Aldrin	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Alpha-BHC	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Alpha-chlordane	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Beta-BHC	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Dieldrin	6.2E-12	1.3E-12	6.2E-12	1.3E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Delta-BHC	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endosulfan I	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endosulfan II	6.2E-12	1.3E-12	6.2E-12	1.3E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endosulfan Sulfate	6.2E-12	1.3E-12	6.2E-12	1.3E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endrin	6.2E-12	1.3E-12	6.2E-12	1.3E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Endrin ketone	6.2E-12	1.3E-12	6.2E-12	1.3E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Gamma-BHC	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Gamma-chlordane	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Heptachlor	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Heptachlor epoxide	3.1E-12	6.4E-13	3.1E-12	6.4E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Methoxychlor	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Toxaphene	6.2E-11	1.3E-11	6.2E-11	1.3E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
PCB's															
Aroclor-1016	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1221	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1232	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1242	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1248	3.1E-11	6.4E-12	3.1E-11	6.4E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1254	7.2E-11	1.5E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Aroclor-1260	6.2E-11	1.3E-11	6.2E-11	1.3E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA

APPENDIX B

RISK ASSESSMENT METHODS

MELVILLE NORTH LANDFILL

TRC

APPENDIX B

RISK ASSESSMENT METHODS

Four different exposure scenarios were included in the risk assessment for the Melville North Landfill Site. Scenario One (1) involves children trespassing on site and exposures to the site as it currently exists, while the three remaining scenarios involve exposures related to potential future uses (construction, commercial/industrial and residential uses of the site. The scenarios are briefly described below. Model equations and parameter values for each exposure pathway follow.

SCENARIO 1: Current Use - Trespassing

Children may trespass on the site as it currently exists, and thereby have contact with contaminated soil. Reports from field personnel indicate no trespassing activities were observed on site. In addition, the site is not located near residential areas. Trespassing would be expected to result in dermal and ingestion exposures to contaminants in soil. It is assumed that children trespass onto the site on an infrequent basis, estimated to be approximately one day per year, that children are unlikely to enter the site on a regular basis before the age of 9 due to its distance from residences, and regular exposures are not expected beyond the age of 18 due to changes in the use of recreational time.

SCENARIO 2: Future Use - Construction

In the future, construction workers may be involved in building homes or a commercial/industrial facility on the Melville North Landfill site. Through excavation and site preparation activities, construction workers could receive extensive inhalation exposure to contaminants in dust, as well as dermal and

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ingestion exposures to contaminants in soil. It is assumed that excavation and site preparation activities would last for a one year period, and that no remediation of contaminants would occur prior to construction or occupation of the commercial/industrial/residential sites (addressed below).

SCENARIO 3: Future Use - Commercial/Industrial

Future use of the site for commercial/industrial purposes presents a potential exposure of employees to site contamination. Such exposures are most likely to include incidental ingestion and dermal exposure to contaminants in soil. It is assumed that employees would be on-site five days/week, 50 weeks/year, for twenty-five years.

SCENARIO 4: Future Use - Residential

Children and adults may occupy residences on the site. Separate scenarios are constructed for each receptor. In both cases, the relevant exposure pathways are indoor and outdoor ingestion of dust/soil, outdoor dermal exposure to soil contaminants, outdoor inhalation of contaminants in dust, indoor inhalation of volatiles emanating from tap water, and ingestion exposures to contaminants in tap water. For children, parameter values for 0-6 year old children were selected, and exposure was assumed to take place over 6 years. For adults, exposure is assumed to occur for 30 years. For both receptors, the exposure frequency is assumed to be 350 days/year.

EXPOSURE EQUATIONS

SCENARIO 1: Current Use

- Dermal Contact with Chemicals in Soil

  Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

TRC

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Compounds 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 1 day/year, based upon trespassing on-site on an infrequent basis
ED = 9 years
BW = 49.2 (children, 9-18 years old) kg (EPA, 1990b)
AT = 3,285 days for non-cancer risks
25,550 days for cancer risks

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day, which is typical for this age group.
EF = 1 day/year
ED = 9 years

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RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3
	Low soil sorption	1.0
	Inorganics	
	Lead:	
	Children	0.5
	All others:	1.0

BW = 49.2 kg (children, 9-18 years old) (EPA, 1990b)
AT = 3,285 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 2: Future Use - Construction

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil down to a depth of 12 feet (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR =	500 mg/day	
ABS =	Volatile Organic Coumpounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible

EF = 250 days/year
ED = 1 year
BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

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- Ingestion of Chemicals in Soil and Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 480 mg/day
EF = 250 days/year
ED = 1 year
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
Lead:	
Adults	0.3
All others:	1.0

BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

- Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/hour)
EF = Exposure Frequency (days/year)

TRC

ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 20 m^3/day for adults under moderate exertion
EF = 250 days/year
ED = 1 year
RAF_{ai} = 1.0
BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 3: Future Use - Commercial/Industrial

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Coumpounds 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 250 days/year
ED = 25 years
BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 50 mg/day
EF = 250 days/year
ED = 25 years
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
Lead:	
Adults	0.3
All others:	1.0

BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)

BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 1.0 liter/day (EPA, 1990b)
EF = 250 days/year
ED = 25 years
BW = 70 kg(EPA, 1990b)
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

SCENARIO 4 - Residential Future Use

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

ABS =

Volatile Organic Coumpounds	0.50
Semivolatile Organic Compounds:	
PAHs	0.05
PCBs	0.05
Pesticides:	
High soil sorption	0.05
Low soil sorption	0.50
Inorganics	Negligible

EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil and House Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
RAF = Relative Absorption Factor (unitless)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day for adults; 200 mg/day for children ages 1-6 years
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
- Lead:	
Children	0.5
Adults	0.3
- All others:	1.0

BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Outdoor Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)

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IR = Inhalation Rate (m^3/day)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

CD = Derived from fugitive dust generation (see below)
IR = 20 m^3/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF_{ai} = 1.0
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 2.0 liters/day for adult, 0.75 liters/day children (EPA, 1990b)
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old (EPA, 1990b)
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Inhalation of Airborne (Vapor Phase) Chemicals

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CA \times IR \times ET \times EF \times ED}{BW \times AT}$$

where:

CA = Contaminant Concentration in Air (mg/m^3) - derived from volatilization during showering (Andelman, 1985)
IR = Inhalation Rate (m^3/hour)
ET = Exposure Time (hours/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 0.6 m^3/hour light activity assumed (EPA, 1990b)
ET = 0.2 hours/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

EXPOSURE POINT MODELS

- Model Estimates of Fugitive Dust Generation

Emissions estimates were calculated for activities resulting in soil disturbance, such as heavy equipment operation and wind erosion which may occur over the site during the construction scenario.

The potentially significant components of fugitive dust at this site are:

1) wind erosion of dust from surfaces without vegetative cover, and
2) dust from loading/unloading of excavated soil.

Fugitive dust from wind erosion over exposed soil and from loading/unloading activities was calculated using (EPA, AP-42, 1988). Fugitive dust generation tables showing all model inputs, are presented in Table B-1. The data are summarized in Table B-2. The models are described below.

$$E = a \cdot I \cdot K \cdot C \cdot L \cdot V \cdot A \cdot T$$

TRC

where:

E = Emission rate (kg/day)

a = Fraction of total wind losses (wind erosion of soil) that remain suspended
I = Soil erodibility
K = Soil roughness factor
C = Climatic factor
L = Field length factor
V = Vegetative cover factor
A = Area of the site
T = Time conversion factor

Most of these values are specified in USEPA (1988) for worst-case treatments. The climatic factor is read from a map and multiplied by .01 as specified. The variables a and I are determined based on site soil characteristics. The following values were used:

a = 0.01
I = 134 tons $acre^{-1}$ yr^{-1}
K = 1 (worst-case for flat terrain)
C = 0.04
L = .7
V = 1 (no vegetative cover-worst case)
A = 3 acres (Scenario 2), 1 acre (Scenario 4)
T = 1 yr/365 days

The wind erosion emission rate is presented in Table B-2.

The second component is due to loading/unloading of soils due to excavation activities and can be accounted for by:

$$E = \frac{k \cdot (.0016) \cdot (U/2.2)^{1.3}}{(M/2)^{1.4}}$$

and

$$E_{ed} = V \cdot D \cdot E / T$$

where:

E = Emission factor due to loading/dumping (kg/Mg)
k = Particle size multiplier
U = Mean wind speed (m/s)
M = Soil moisture (%)
E_{ed} = Emission rate due to loading/dumping (kg/day)
V = Volume of soil excavated (m^3)
D = Density of soil (Mg/m^3)
T = Time conversion factor (days of excavation)

Using conservative assumptions and appropriate guidelines (EPA, AP-42, 1988):

k = .74
U = 4.74 m/s
M = 5%
V = 917.5 m^3
D = 1.5 Mg/m^3
T = 180 days

The emissions due to loading/dumping are presented in Table B-2.

Total fugitive emissions (from wind activity and loading/dumping) are also presented in Table B-2.

The dust concentration on site is calculated by:

$$Cs = \frac{E}{w \cdot W \cdot H} \cdot C_f$$

where:

Cs = Dust concentration on site (mg/m^3)
E = Total emission rate (kg/day)
w = Wind speed = 4.74 m/s
W = Width (entire site) = 365 m
H = Breathing height = 2 m
C_f = Factors for converting from days to seconds and from kg to mg

Total fugitive dust concentrations on site are shown in Table B-2.

The concentration of contaminant suspended in air is estimated by a simple ratio of contaminant concentration in soil to fugitive dust emissions:

$$A_c = CC \cdot C_s \cdot C_f$$

where:

A_c = Concentration of suspended contaminant (mg/m^3)
CC - Contaminant concentration in soil (mg/kg)
C_s = Dust concentration on site (mg/m^3)
C_f = Conversion factor (kg/mg)

TABLE B-1
DUST EMISSION RATE
FOR MELVILLE NORTH

SITE LOCATION AND SCENARIO (#)	VEGETATIVE COVER FACTOR (V')	UNSHELTERED FIELD WIDTH FACTOR (L')	CLIMATIC FACTOR (C)	SURFACE ROUGHNESS FACTOR (K)	SOIL ERODIBILITY (I) (ton/acre/year)	PORTION AS SUSPENDED PARTICULATES (a)	EMISSION FACTOR (E) (ton/acre/yr)	CONVERSION FACTOR (kg/ton)	EMISSION FACTOR (E) (kg/acre/year)	TIME CONSTANT (year/day)	AREA (acres)	WIND EROSION EMISSION RATE (kg/day)
Melville North (2)	1	0.7	0.04	1	134	0.010	3.8E-02	907.18	3.4E+01	0.0027	3	2.76E-01
Melville North (4)	1	0.7	0.04	1	134	0.010	3.8E-02	907.18	3.4E+01	0.0027	1	9.19E-02

LOADING & DUMPING – DUST EMISSION RATE

SITE LOCATION AND SCENARIO (#)	MOISTURE CONTENT CONSTANT	MATERIAL MOISTURE CONTENT (M) (%)	WIND SPEED CONSTANT	MEAN WIND SPEED (U) (m/s)	PARTICLE SIZE CONSTANT	PARTICLE SIZE MULTIPLIER (k)	EMISSION FACTOR (E) (kg/Mg)	TIME (days)	DENSITY OF SOIL (D) (Mg/m3)	VOLUME OF SOIL EXCAVATED (m3)	LOADING AND DUMPING EMISSION RATE (kg/day)
Melville North (2)	2	5	2.2	4.74	1.60E-03	0.74	8.9E-04	180	1.5	917.5	6.81E-03

TABLE B-2

FUGITIVE DUST EMISSION
RATES AND AMBIENT CONCENTRATION ESTIMATES
MELVILLE NORTH LANDFILL

DUST EMISSION RATE (kg/day)

	Scenario 2	Scenario 4
Wind Erosion	2.76E-01	9.19E-02
Loading/Unloading	6.81E-03	NA
Total Dust Emission Rate	2.83E-01	9.19E-02
Dust Concentration (mg/m^3)	9.47E-10	3.08E-10

NA = Not Applicable

TABLE B.1-1
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER-MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER-MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER-MAX (mg/kg/day)	ABS. DOSE CHILD CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.64	50.40	1.0E-06	500	0.00	1	9	49.2	3285	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.70	23.40	1.0E-06	500	0.00	1	9	49.2	3285	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.47	269.00	1.0E-06	500	0.00	1	9	49.2	3285	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.21	0.52	1.0E-06	500	0.00	1	9	49.2	3285	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.57	3.00	1.0E-06	500	0.00	1	9	49.2	3285	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	12.63	35.20	1.0E-06	500	0.00	1	9	49.2	3285	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.11	16.70	1.0E-06	500	0.00	1	9	49.2	3285	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	27.64	206.00	1.0E-06	500	0.00	1	9	49.2	3285	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	48.26	400.50	1.0E-06	500	0.00	1	9	49.2	3285	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1983.05	4530.00	1.0E-06	500	0.00	1	9	49.2	3285	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.14	1.10	1.0E-06	500	0.00	1	9	49.2	3285	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	14.72	32.20	1.0E-06	500	0.00	1	9	49.2	3285	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.96	7.00	1.0E-06	500	0.00	1	9	49.2	3285	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	23.25	53.80	1.0E-06	500	0.00	1	9	49.2	3285	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.15	547.00	1.0E-06	500	0.00	1	9	49.2	3285	25550
VOLATILES														
1,1-Dichloroethene	4.7E-11	6.0E-12	9.7E-11	1.3E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
1,1,1-Trichloroethane	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
1,1,2-Trichloroethane	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
1,1,2,2-Tetrachloroethane	5.7E-11	7.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
1,2-Dichloroethane	4.7E-11	6.0E-12	9.7E-11	1.3E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
1,2-Dichloropropane	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
1,3-Dichloropropene(cis)	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
1,3-Dichloropropene(trans)	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	1	9	49.2	3285	25550
2-Hexanone	1.1E-10	1.5E-11	2.2E-10	2.9E-11	0.01	0.02	1.0E-06	500	0.50	1	9	49.2	3285	25550
4-Methyl-2-Pentanone	1.1E-10	1.5E-11	2.2E-10	2.9E-11	0.01	0.02	1.0E-06	500	0.50	1	9	49.2	3285	25550
Acetone	1.2E-10	1.6E-11	2.6E-09	3.4E-10	0.01	0.19	1.0E-06	500	0.50	1	9	49.2	3285	25550
Benzene	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Bromodichloromethane	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Bromoform	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Carbon Tetrachloride	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Chlorobenzene	5.7E-11	7.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Chloroform	4.9E-11	6.3E-12	9.7E-11	1.3E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Chloromethane	9.3E-11	1.2E-11	1.9E-10	2.5E-11	0.01	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Dibromochloromethane	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Ethylbenzene	5.7E-11	7.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	1	9	49.2	3285	25550
Styrene	5.7E-11	7.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Tetrachloroethene	5.0E-11	6.5E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Toluene	5.5E-11	7.0E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Trichloroethene	4.9E-11	6.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Vinyl chloride	9.3E-11	1.2E-11	1.9E-10	2.5E-11	0.01	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550
Xylenes	5.7E-11	7.3E-12	1.1E-10	1.4E-11	0.00	0.01	1.0E-06	500	0.50	1	9	49.2	3285	25550

TABLE B.1-1 (cont.)
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER-MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER-MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER-MAX (mg/kg/day)	ABS. DOSE CHILD CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	1	9	49.2	3285	25550
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	1	9	49.2	3285	25550
2-Methylnaphthalene	4.1E-10	5.2E-11	1.7E-09	2.1E-10	0.29	1.20	1.0E-06	500	0.05	1	9	49.2	3285	25550
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	1	9	49.2	3285	25550
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	1	9	49.2	3285	25550
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	1	9	49.2	3285	25550
Acenaphthene	3.9E-10	5.0E-11	5.2E-10	6.6E-11	0.28	0.37	1.0E-06	500	0.05	1	9	49.2	3285	25550
Acenaphthylene	3.5E-10	4.5E-11	2.1E-09	2.7E-10	0.25	1.50	1.0E-06	500	0.05	1	9	49.2	3285	25550
Anthracene	3.8E-10	4.9E-11	3.3E-09	4.3E-10	0.27	2.40	1.0E-06	500	0.05	1	9	49.2	3285	25550
Benzo(a)anthracene	6.1E-10	7.8E-11	1.4E-08	1.8E-09	0.44	9.80	1.0E-06	500	0.05	1	9	49.2	3285	25550
Benzo(a)pyrene	6.3E-10	8.1E-11	1.0E-08	1.3E-09	0.45	7.50	1.0E-06	500	0.05	1	9	49.2	3285	25550
Benzo(b)fluoranthene	6.6E-10	8.5E-11	8.9E-09	1.1E-09	0.48	6.40	1.0E-06	500	0.05	1	9	49.2	3285	25550
Benzo(ghi)perylene	5.3E-10	6.9E-11	4.7E-09	6.1E-10	0.38	3.40	1.0E-06	500	0.05	1	9	49.2	3285	25550
Benzo(k)fluoranthene	6.3E-10	8.1E-11	9.5E-09	1.2E-09	0.45	6.80	1.0E-06	500	0.05	1	9	49.2	3285	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	1	9	49.2	3285	25550
Chrysene	7.0E-10	9.0E-11	1.5E-08	2.0E-09	0.50	11.00	1.0E-06	500	0.05	1	9	49.2	3285	25550
Dibenzo(a,h)anthracene	3.9E-10	5.0E-11	2.2E-09	2.9E-10	0.28	1.60	1.0E-06	500	0.05	1	9	49.2	3285	25550
Fluoranthene	9.0E-10	1.2E-10	2.1E-08	2.7E-09	0.65	15.00	1.0E-06	500	0.05	1	9	49.2	3285	25550
Fluorene	4.0E-10	5.1E-11	3.5E-09	4.5E-10	0.29	2.50	1.0E-06	500	0.05	1	9	49.2	3285	25550
Indeno(123cd)pyrene	5.4E-10	6.9E-11	4.6E-09	5.9E-10	0.38	3.30	1.0E-06	500	0.05	1	9	49.2	3285	25550
Naphthalene	3.5E-10	4.5E-11	6.3E-10	8.1E-11	0.25	0.45	1.0E-06	500	0.05	1	9	49.2	3285	25550
Phenanthrene	5.9E-10	7.6E-11	1.9E-08	2.5E-09	0.42	14.00	1.0E-06	500	0.05	1	9	49.2	3285	25550
Pyrene	8.4E-10	1.1E-10	2.1E-08	2.7E-09	0.60	15.00	1.0E-06	500	0.05	1	9	49.2	3285	25550
PESTICIDES														
4,4'-DDD	3.9E-11	5.0E-12	7.0E-12	8.9E-13	0.03	0.01	1.0E-06	500	0.05	1	9	49.2	3285	25550
4,4'-DDE	4.4E-11	5.7E-12	1.8E-10	2.3E-11	0.03	0.13	1.0E-06	500	0.05	1	9	49.2	3285	25550
4,4'-DDT	9.0E-11	1.2E-11	6.3E-10	8.1E-11	0.06	0.45	1.0E-06	500	0.05	1	9	49.2	3285	25550
PESTICIDES														
Aroclor-1260	3.8E-10	4.9E-11	3.8E-10	4.8E-11	0.27	0.27	1.0E-06	500	0.05	1	9	49.2	3285	25550

TABLE B.1-2
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	2.6E-08	3.3E-09	2.8E-07	3.6E-08	4.64	50.40	100	1.0E-06	1	9	1.00	49.2	3285	25550
Arsenic	3.2E-08	4.1E-09	1.3E-07	1.7E-08	5.70	23.40	100	1.0E-06	1	9	1.00	49.2	3285	25550
Barium	1.0E-07	1.3E-08	1.5E-06	1.9E-07	18.47	269.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Beryllium	1.2E-09	1.5E-10	2.8E-09	3.7E-10	0.21	0.52	100	1.0E-06	1	9	1.00	49.2	3285	25550
Cadmium	3.1E-09	4.0E-10	1.7E-08	2.1E-09	0.57	3.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Chromium	7.0E-08	9.0E-09	2.0E-07	2.5E-08	12.63	35.20	100	1.0E-06	1	9	1.00	49.2	3285	25550
Cobalt	4.5E-08	5.8E-09	9.3E-08	1.2E-08	8.11	16.70	100	1.0E-06	1	9	1.00	49.2	3285	25550
Copper	1.5E-07	2.0E-08	1.1E-06	1.5E-07	27.64	206.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Lead	1.3E-07	1.7E-08	1.1E-06	1.4E-07	48.26	400.50	100	1.0E-06	1	9	0.50	49.2	3285	25550
Magnesium	1.1E-05	1.4E-06	2.5E-05	3.2E-06	1983.05	4530.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Mercury	8.1E-10	1.0E-10	6.1E-09	7.9E-10	0.14	1.10	100	1.0E-06	1	9	1.00	49.2	3285	25550
Nickel	8.2E-08	1.1E-08	1.8E-07	2.3E-08	14.72	32.20	100	1.0E-06	1	9	1.00	49.2	3285	25550
Thallium	5.3E-09	6.9E-10	3.9E-08	5.0E-09	0.96	7.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Vanadium	1.3E-07	1.7E-08	3.0E-07	3.9E-08	23.25	53.80	100	1.0E-06	1	9	1.00	49.2	3285	25550
Zinc	4.7E-07	6.1E-08	3.0E-06	3.9E-07	85.15	547.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
VOLATILES (ug/kg)														
1,1-Dichloroethene	1.9E-11	2.4E-12	3.9E-11	5.0E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,1,1-Trichloroethane	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,1,2-Trichloroethane	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,1,2,2-Tetrachloroethane	2.3E-11	2.9E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,2-Dichloroethane	1.9E-11	2.4E-12	3.9E-11	5.0E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,2-Dichloropropane	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,3-Dichloropropene(cis)	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,3-Dichloropropene(trans)	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
2-Hexanone	4.5E-11	5.8E-12	8.9E-11	1.1E-11	0.01	0.02	100	1.0E-06	1	9	1.00	49.2	3285	25550
4-Methyl-2-Pentanone	4.5E-11	5.8E-12	8.9E-11	1.1E-11	0.01	0.02	100	1.0E-06	1	9	1.00	49.2	3285	25550
Acetone	4.8E-11	6.2E-12	1.1E-09	1.4E-10	0.01	0.19	100	1.0E-06	1	9	1.00	49.2	3285	25550
Benzene	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Bromodichloromethane	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Bromoform	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Carbon Tetrachloride	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Chlorobenzene	2.3E-11	2.9E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Chloroform	1.9E-11	2.5E-12	3.9E-11	5.0E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Chloromethane	3.7E-11	4.8E-12	7.8E-11	1.0E-11	0.01	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Dibromochloromethane	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Ethylbenzene	2.3E-11	2.9E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
Styrene	2.3E-11	2.9E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Tetrachloroethene	2.0E-11	2.8E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Toluene	2.2E-11	2.8E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Trichloroethene	1.9E-11	2.5E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Vinyl chloride	3.7E-11	4.8E-12	7.8E-11	1.0E-11	0.01	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550
Xylenes	2.3E-11	2.9E-12	4.5E-11	5.7E-12	0.00	0.01	100	1.0E-06	1	9	1.00	49.2	3285	25550

TABLE B.1-2 (cont.)
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
2-Methylnaphthalene	1.6E-09	2.1E-10	6.7E-09	8.6E-10	0.29	1.20	100	1.0E-06	1	9	1.00	49.2	3285	25550
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
Acenaphthene	1.5E-09	2.0E-10	2.1E-09	2.6E-10	0.26	0.37	100	1.0E-06	1	9	1.00	49.2	3285	25550
Acenaphthylene	1.4E-09	1.8E-10	8.4E-09	1.1E-09	0.25	1.50	100	1.0E-06	1	9	1.00	49.2	3285	25550
Anthracene	1.5E-09	1.9E-10	1.3E-08	1.7E-09	0.27	2.40	100	1.0E-06	1	9	1.00	49.2	3285	25550
Benzo(a)anthracene	2.4E-09	3.1E-10	5.5E-08	7.0E-09	0.44	9.80	100	1.0E-06	1	9	1.00	49.2	3285	25550
Benzo(a)pyrene	2.5E-09	3.2E-10	4.2E-08	5.4E-09	0.45	7.50	100	1.0E-06	1	9	1.00	49.2	3285	25550
Benzo(b)fluoranthene	2.7E-09	3.4E-10	3.6E-08	4.6E-09	0.48	6.40	100	1.0E-06	1	9	1.00	49.2	3285	25550
Benzo(ghi)perylene	2.1E-09	2.7E-10	1.9E-08	2.4E-09	0.38	3.40	100	1.0E-06	1	9	1.00	49.2	3285	25550
Benzo(k)fluoranthene	2.5E-09	3.3E-10	3.8E-08	4.9E-09	0.45	6.80	100	1.0E-06	1	9	1.00	49.2	3285	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E-06	1	9	1.00	49.2	3285	25550
Chrysene	2.8E-09	3.6E-10	6.1E-08	7.9E-09	0.50	11.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Dibenzo(a,h)anthracene	1.5E-09	2.0E-10	8.9E-09	1.1E-09	0.28	1.60	100	1.0E-06	1	9	1.00	49.2	3285	25550
Fluoranthene	3.6E-09	4.6E-10	8.4E-08	1.1E-08	0.65	15.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Fluorene	1.6E-09	2.0E-10	1.4E-08	1.8E-09	0.29	2.50	100	1.0E-06	1	9	1.00	49.2	3285	25550
Indeno(123cd)pyrene	2.1E-09	2.8E-10	1.8E-08	2.4E-09	0.38	3.30	100	1.0E-06	1	9	1.00	49.2	3285	25550
Naphthalene	1.4E-09	1.8E-10	2.5E-09	3.2E-10	0.25	0.45	100	1.0E-06	1	9	1.00	49.2	3285	25550
Phenanthrene	2.4E-09	3.0E-10	7.8E-08	1.0E-08	0.42	14.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
Pyrene	3.3E-09	4.3E-10	8.4E-08	1.1E-08	0.60	15.00	100	1.0E-06	1	9	1.00	49.2	3285	25550
PESTICIDES (ug/L)														
4,4'-DDD	4.7E-11	6.0E-12	8.4E-12	1.1E-12	0.03	0.01	100	1.0E-06	1	9	0.30	49.2	3285	25550
4,4'-DDE	5.3E-11	6.8E-12	2.2E-10	2.8E-11	0.03	0.13	100	1.0E-06	1	9	0.30	49.2	3285	25550
4,4'-DDT	1.1E-10	1.4E-11	7.5E-10	9.7E-11	0.06	0.45	100	1.0E-06	1	9	0.30	49.2	3285	25550
PESTICIDES (ug/L)														
Aroclor-1260	4.6E-10	5.9E-11	4.5E-10	5.8E-11	0.27	0.27	100	1.0E-06	1	9	0.30	49.2	3285	25550

TABLE B 1-3
SCENARIO 1
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	TOTAL PATHWAY RISK	
										4.8E-10	6.2E-07	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										4.2E-10	3.3E-08	MEAN
VOLATILES												
1,1-Dichloroethene	6.0E-12	1.3E-11	No	6.00E-01	C	Adrenal pheochromocytomas	Oral/IRIS	3.6E-12	7.5E-12			
1,1,1-Trichloroethane	6.3E-12	1.4E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
1,1,2-Trichloroethane	6.3E-12	1.4E-11	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.6E-13	8.2E-13			
1,1,2,2-Tetrachloroethane	7.3E-12	1.4E-11	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.5E-12	2.9E-12			
1,2-Dichloroethane	6.0E-12	1.3E-11	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	5.5E-13	1.1E-12			
1,2-Dichloropropane	6.3E-12	1.4E-11	No	6.80E-02	B2	Liver	Gavage/HEAST	4.3E-13	9.7E-13			
1,3-Dichloropropene(cis)	6.3E-12	1.4E-11	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	1.1E-12	2.6E-12			
1,3-Dichloropropene(trans)	6.3E-12	1.4E-11	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	1.1E-12	2.6E-12			
2-Butanone	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
2-Hexanone	1.5E-11	2.9E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
4-Methyl-2-Pentanone	1.5E-11	2.9E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Acetone	1.6E-11	3.4E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzene	6.3E-12	1.4E-11	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.8E-13	4.2E-13			
Bromodichloromethane	6.3E-12	1.4E-11	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	8.1E-13	1.9E-12			
Bromoform	6.3E-12	1.4E-11	No	7.90E-03	B2	Intestional lesions	Gavage/IRIS	4.9E-14	1.1E-13			
Carbon Tetrachloride	6.3E-12	1.4E-11	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	8.1E-13	1.9E-12			
Chlorobenzene	7.3E-12	1.4E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloroform	6.3E-12	1.3E-11	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	3.8E-14	7.6E-14			
Chloromethane	1.2E-11	2.5E-11	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.6E-13	3.3E-13			
Dibromochloromethane	6.3E-12	1.4E-11	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	5.3E-13	1.2E-12			
Ethylbenzene	7.3E-12	1.4E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Methylene Chloride	0.0E+00	0.0E+00	No	7.50E-03	B2	Hepatocellular carcinoma	Water/IRIS	0.0E+00	0.0E+00			
Styrene	7.3E-12	1.4E-11	No	3.00E-02	B2	Lung, bronchi	Gavage/HEAST	2.2E-13	4.3E-13			
Tetrachloroethene	6.5E-12	1.4E-11	No	5.10E-02	B2	Liver	Gavage/HEAST	3.3E-13	7.3E-13			
Toluene	7.0E-12	1.4E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Trichloroethene	6.3E-12	1.4E-11	No	1.10E-02	B2	Liver	Gavage/HEAST	6.9E-14	1.6E-13			
Vinyl chloride	1.2E-11	2.5E-11	No	1.90E+00	A	Lung	Diet/HEAST	2.3E-11	4.8E-11			
Xylenes	7.3E-12	1.4E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
SEMIVOLATILES												
1,3-Dichlorobenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/HEAST	0.0E+00	0.0E+00			
2-Methylnaphthalene	5.2E-11	2.1E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
2,4-Dinitrophenol	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
3-Nitroaniline	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00			
Acenaphthene	5.0E-11	6.6E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Acenaphthylene	4.5E-11	2.7E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Anthracene	4.9E-11	4.3E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(a)anthracene	7.8E-11	1.8E-09	No	NA	B2	Liver,Lung,skin	IRIS	0.0E+00	0.0E+00			
Benzo(a)pyrene	8.1E-11	1.3E-09	No	NA	B2	Lung,stomach	IRIS	0.0E+00	0.0E+00			
Benzo(b)fluoranthene	8.5E-11	1.1E-09	No	NA	B2	Lung,thorax,skin	IRIS	0.0E+00	0.0E+00			
Benzo(ghi)perylene	8.9E-11	8.1E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(k)fluoranthene	8.1E-11	1.2E-09	No	NA	B2	Lung,thorax,skin	IRIS	0.0E+00	0.0E+00			
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00			
Chrysene	9.0E-11	2.0E-09	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00			
Dibenzo(a,h)anthracene	5.0E-11	2.9E-10	No	NA	B2	Lung,mammary	IRIS	0.0E+00	0.0E+00			
Fluoranthene	1.2E-10	2.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluorene	5.1E-11	4.5E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Indeno(123cd)pyrene	8.9E-11	5.9E-10	No	NA	B2	Lung,skin	IRIS	0.0E+00	0.0E+00			
Naphthalene	4.5E-11	8.1E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenanthrene	7.6E-11	2.5E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Pyrene	1.1E-10	2.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
PESTICIDES												
4,4'-DDD	5.0E-12	8.9E-13	No	2.40E-01	B2	Liver tumor	Oral,IRIS	1.2E-12	2.1E-13			
4,4'-DDE	5.7E-12	2.3E-11	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.9E-12	7.9E-12			
4,4'-DDT	1.2E-11	8.1E-11	No	3.40E-01	B2	Liver tumor	Diet/IRIS	3.9E-12	2.7E-11			
PCB'S												
Aroclor-1260	4.9E-11	4.8E-11	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	3.8E-10	3.7E-10			

TABLE B.1-4
SCENARIO 1
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK	CHEMICAL SPECIFIC RISK	TOTAL PATHWAY RISK	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										6.2E-07	MAXIMUM
										3.3E-08	MEAN
INORGANICS											
Antimony	3.32E-09	2.81E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	4.08E-09	1.30E-07	No	1.75E+00	A	Skin	Water/IRIS	7.1E-09	2.3E-07		
Barium	1.32E-08	1.50E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Beryllium	1.52E-10	2.80E-09	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	6.5E-10	1.2E-08		
Cadmium	4.05E-10	1.67E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	9.04E-09	1.96E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	5.81E-09	9.30E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	1.98E-08	1.15E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	1.73E-08	1.12E-08	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00		
Magnesium	1.42E-06	2.52E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	1.04E-10	6.13E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	1.05E-08	1.78E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Thallium	6.87E-10	3.90E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Vanadium	1.66E-08	3.00E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	6.10E-08	3.05E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	2.41E-12	5.01E-12	No	6.00E-01	C	Adrenal pheochromocytoma	Oral/IRIS	1.4E-12	3.0E-12		
1,1,1-Trichloroethane	2.50E-12	5.73E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	2.50E-12	5.73E-12	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.4E-13	3.3E-13		
1,1,2,2-Tetrachloroethane	2.92E-12	5.73E-12	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	5.8E-13	1.1E-12		
1,2-Dichloroethane	2.41E-12	5.01E-12	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	2.2E-13	4.6E-13		
1,2-Dichloropropane	2.50E-12	5.73E-12	No	6.80E-02	B2	Liver	Gavage/HEAST	1.7E-13	3.9E-13		
1,3-Dichloropropene(cis)	2.50E-12	5.73E-12	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	4.5E-13	1.0E-12		
1,3-Dichloropropene(trans)	2.50E-12	5.73E-12	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	4.5E-13	1.0E-12		
2-Butanone	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
2-Hexanone	5.81E-12	1.15E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
4-Methyl-2-Pentanone	5.81E-12	1.15E-11	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Acetone	6.25E-12	1.36E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	2.50E-12	5.73E-12	No	2.90E-02	A	Leukemia	Occupational/IRIS	7.3E-14	1.7E-13		
Bromodichloromethane	2.50E-12	5.73E-12	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	3.3E-13	7.4E-13		
Bromoform	2.50E-12	5.73E-12	No	7.90E-03	B2	Intestinal lesions	Gavage/IRIS	2.0E-14	4.5E-14		
Carbon Tetrachloride	2.50E-12	5.73E-12	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	3.3E-13	7.4E-13		
Chlorobenzene	2.92E-12	5.73E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloroform	2.50E-12	5.01E-12	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	1.5E-14	3.1E-14		
Chloromethane	4.80E-12	1.00E-11	No	1.30E-02	C	Kidney	Inhalation/HEAST	6.2E-14	1.3E-13		
Dibromochloromethane	2.50E-12	5.73E-12	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	3.3E-13	7.4E-13		
Ethylbenzene	2.92E-12	5.73E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Methylene Chloride	0.00E+00	0.00E+00	No	7.50E-03	B2	Hepatocellular carcinomas	Water/IRIS	0.0E+00	0.0E+00		
Styrene	2.92E-12	5.73E-12	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	8.8E-14	1.7E-13		
Tetrachloroethene	2.58E-12	5.73E-12	No	5.10E-02	B2	Liver	Gavage/HEAST	1.3E-13	2.9E-13		
Toluene	2.81E-12	5.73E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Trichloroethene	2.50E-12	5.73E-12	No	1.10E-02	B2	Liver	Gavage/HEAST	2.8E-14	6.3E-14		
Vinyl chloride	4.80E-12	1.00E-11	No	1.90E+00	A	Lung	Diet/HEAST	9.1E-12	1.9E-11		
Xylenes	2.92E-12	5.73E-12	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE B.1-4 (cont.)
SCENARIO 1
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK	CHEMICAL SPECIFIC RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL									
SEMIVOLATILES									
1,3-Dichlorobenzene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
1,4-Dichlorobenzene	0.00E+00	0.00E+00	No	2.40E-02	C	Liver	Gavage/HEAST	0.0E+00	0.0E+00
2-Methylnaphthalene	2.09E-10	8.59E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dinitrophenol	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3-Nitroaniline	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00
Acenaphthene	1.99E-10	2.65E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	1.78E-10	1.07E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	1.94E-10	1.72E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	3.13E-10	7.02E-09	No	1.15E+01	B2	Liver,lung,skin	IRIS	3.6E-09	8.1E-08
Benzo(a)pyrene	3.24E-10	5.37E-09	No	1.15E+01	B2	Lung,stomach	IRIS	3.7E-09	6.2E-08
Benzo(b)fluoranthene	3.42E-10	4.58E-09	No	1.15E+01	B2	Lung,thorax,skin	IRIS	3.9E-09	5.3E-08
Benzo(ghi)perylene	2.75E-10	2.43E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	3.25E-10	4.87E-09	No	1.15E+01	B2	Lung,thorax,skin	IRIS	3.7E-09	5.6E-08
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00
Chrysene	3.61E-10	7.88E-09	No	1.15E+01	B2	Malignant lymphoma	IRIS	4.1E-09	9.1E-08
Dibenzo(a,h)anthracene	1.99E-10	1.15E-09	No	1.15E+01	B2	Lung,mammary	IRIS	2.3E-09	1.3E-08
Fluoranthene	4.63E-10	1.07E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	2.04E-10	1.79E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	2.75E-10	2.36E-09	No	1.15E+01	B2	Lung,skin	IRIS	3.2E-09	2.7E-08
Naphthalene	1.82E-10	3.22E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	3.03E-10	1.00E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	4.31E-10	1.07E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	5.98E-12	1.07E-12	No	2.40E-01	B2	Liver tumor	Oral/IRIS	1.4E-12	2.6E-13
4,4'-DDE	6.80E-12	2.79E-11	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.3E-12	9.5E-12
4,4'-DDT	1.39E-11	9.67E-11	No	3.40E-01	B2	Liver tumor	Diet/IRIS	4.7E-12	3.3E-11
PCB's									
Aroclor-1260	5.88E-11	5.80E-11	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	4.5E-10	4.5E-10

TABLE B.1-5
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	TOTAL PATHWAY RISK	TOTAL PATHWAY RISK	
												2.7E-05	1.7E-03	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												2.3E-06	2.3E-04	MEAN
VOLATILES														
1,1-Dichloroethene	4.7E-11	9.7E-11	No	9E-03	Medium	Hepatic lesions	Water/IRIS	1000	1	5.2E-09	1.1E-08			
1,1,1-Trichloroethane	4.9E-11	1.1E-10	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	5.4E-10	1.2E-09			
1,1,2-Trichloroethane	4.9E-11	1.1E-10	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.2E-08	2.8E-08			
1,1,2,2-Tetrachloroethane	5.7E-11	1.1E-10	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethane	4.7E-11	9.7E-11	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloropropane	4.9E-11	1.1E-10	No	NA			NA/IRIS,HEAST			NA	NA			
1,3-Dichloropropene(cis)	4.9E-11	1.1E-10	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	1.6E-07	3.7E-07			
1,3-Dichloropropene(trans)	4.9E-11	1.1E-10	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	1.6E-07	3.7E-07			
2-Butanone	0.0E+00	0.0E+00	No	5E-02	Medium	Fetotoxicity	Inhalation/IRIS	1000	1	0.0E+00	0.0E+00			
2-Hexanone	1.1E-10	2.2E-10	No	NA			NA/IRIS,HEAST			NA	NA			
4-Methyl-2-Pentanone	1.1E-10	2.2E-10	No	5E-02		Liver and kidney effects	Gavage/HEAST	1000	1	2.3E-09	4.5E-09			
Acetone	1.2E-10	2.6E-09	No	1E-01	Low	Increased liver,kidney weights	Gavage/IRIS	1000	1	1.2E-09	2.6E-08			
Benzene	4.9E-11	1.1E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Bromodichloromethane	4.9E-11	1.1E-10	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	2.4E-09	5.6E-09			
Bromoform	4.9E-11	1.1E-10	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	2.4E-09	5.6E-09			
Carbon Tetrachbride	4.9E-11	1.1E-10	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	7.0E-08	1.6E-07			
Chlorobenzene	5.7E-11	1.1E-10	No	2E-02	Medium	Liver and kidney effects	Oral/IRIS,HEAST	1000	1	2.8E-09	5.6E-09			
Chloroform	4.9E-11	9.7E-11	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	4.9E-09	9.7E-09			
Chloromethane	9.3E-11	1.9E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Dibromochloromethane	4.9E-11	1.1E-10	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	2.4E-09	5.6E-09			
Ethylbenzene	5.7E-11	1.1E-10	No	1E-01	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	5.7E-10	1.1E-09			
Methylene Chloride	0.0E+00	0.0E+00	No	6E-02	Medium	Liver toxicity	Water/IRIS	100	1	0.0E+00	0.0E+00			
Styrene	5.7E-11	1.1E-10	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	2.8E-10	5.6E-10			
Tetrachloroethene	5.0E-11	1.1E-10	No	1E-02	Medium	Hepatotoxicity,weight gain	Gavage/IRIS	100	1	5.0E-09	1.1E-08			
Toluene	5.5E-11	1.1E-10	No	2E-01	Medium	Liver and kidney weights	Gavage/IRIS	1000	1	2.7E-10	5.6E-10			
Trichloroethene	4.9E-11	1.1E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Vinyl chloride	9.3E-11	1.9E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Xylenes	5.7E-11	1.1E-10	No	2E+00	Medium	Hyperactivity, inc. mortality	Gavage/IRIS	100	1	2.8E-11	5.6E-11			
SEMIVOLATILES														
1,3-Dichlorobenzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA			
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA			
2-Methylnaphthalene	4.1E-10	1.7E-09	No	4E-03			NA/IRIS,HEAST			1.0E-07	4.2E-07			
2,4-Dinitrophenol	0.0E+00	0.0E+00	No	2E-03	Low	Cataract formation	Human/IRIS	1000	1	0.0E+00	0.0E+00			
3-Nitroaniline	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA			
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA			
Acenaphthene	3.9E-10	5.2E-10	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	6.5E-09	8.6E-09			
Acenaphthylene	3.5E-10	2.1E-09	No	4E-03			NA/IRIS,HEAST			8.7E-08	5.2E-07			
Anthracene	3.8E-10	3.3E-09	No	3E-01	Low	No adverse effects	Gavage/IRIS,HEAST	3000	1	1.3E-09	1.1E-08			
Benzo(a)anthracene	6.1E-10	1.4E-08	No	4E-03			NA/IRIS,HEAST			1.5E-07	3.4E-06			
Benzo(a)pyrene	6.3E-10	1.0E-08	No	4E-03			NA/IRIS,HEAST			1.6E-07	2.6E-06			
Benzo(b)fluoranthene	6.6E-10	8.9E-09	No	4E-03			NA/IRIS,HEAST			1.7E-07	2.2E-06			
Benzo(ghi)perylene	5.3E-10	4.7E-09	No	4E-03			NA/IRIS,HEAST			1.3E-07	1.2E-06			
Benzo(k)fluoranthene	6.3E-10	9.5E-09	No	4E-03			NA/IRIS,HEAST			1.6E-07	2.4E-06			
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	2E-02	Medium	Increased liver weight	Diet/IRIS,HEAST	1000	1	0.0E+00	0.0E+00			
Chrysene	7.0E-10	1.5E-08	No	4E-03			NA/IRIS,HEAST			1.8E-07	3.8E-06			
Dibenzo(a,h)anthracene	3.9E-10	2.2E-09	No	4E-03			NA/IRIS,HEAST			9.7E-08	5.6E-07			
Fluoranthene	9.0E-10	2.1E-08	No	4E-02	Low	Neuropathy,liver,blood	Gavage/IRIS	3000	1	2.3E-08	5.2E-07			
Fluorene	4.0E-10	3.5E-09	No	4E-02	Low	Neuorpathy,liver,blood	Gavage/IRIS	3000	1	9.9E-09	8.7E-08			
Indeno(123cd)pyrene	5.4E-10	4.6E-09	No	4E-03			NA/IRIS,HEAST			1.3E-07	1.1E-06			
Naphthalene	3.5E-10	6.3E-10	No	4E-03		Dec. body weight gain	Gavage/HEAST	10,000	1	8.8E-08	1.6E-07			
Phenanthrene	5.9E-10	1.9E-08	No	4E-03			NA/IRIS,HEAST			1.5E-07	4.9E-06			
Pyrene	8.4E-10	2.1E-08	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	2.8E-08	7.0E-07			
PESTICIDES														
4,4'-DDD	3.9E-11	7.0E-12	No	NA			NA/IRIS,HEAST			NA	NA			
4,4'-DDE	4.4E-11	1.8E-10	No	NA			NA/IRIS,HEAST			NA	NA			
4,4'-DDT	9.0E-11	6.3E-10	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.8E-07	1.3E-06			
PCB's														
Aroclor-1260	3.8E-10	3.8E-10	No	NA			NA/IRIS,HEAST			NA	NA			

TABLE B.1-6
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT	HAZARD QUOTIENT	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												1.7E-03 MAXIMUM 2.3E-04 MEAN
INORGANICS												
Antimony	2.6E-08	2.6E-07	No	4E-04	Low	Longevity;blood glucose,chol.	Water/IRIS,HEAST	1000	1	6.5E-05	7.0E-04	
Arsenic	3.2E-08	1.3E-07	No	1E-03		Keratosis;hyperpigmentation	Diet/HEAST	1	1	3.2E-05	1.3E-04	
Barium	1.0E-07	1.5E-06	No	7E-02	Medium	No adverse effects	Water/IRIS	3	1	1.5E-06	2.1E-05	
Beryllium	1.2E-09	2.6E-09	No	5E-03	Low	No adverse effects	Water/IRIS,HEAST	100	1	2.4E-07	5.8E-07	
Cadmium	3.1E-09	1.7E-08	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	3.1E-06	1.7E-05	
Chromium	7.0E-08	2.0E-07	No	5E-03	Low	No adverse effects	Water/IRIS,HEAST	500	1	1.4E-05	3.9E-05	
Cobalt	4.5E-08	9.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	1.5E-07	1.1E-06	No	4E-02		Local GI Irritation	HEAST			3.8E-06	2.9E-05	
Lead	1.3E-07	1.1E-06	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Magnesium	1.1E-05	2.5E-05	No	NA			NA/IRIS,HEAST			NA	NA	
Mercury	8.1E-10	6.1E-09	No	3E-04		Kidney effects	Oral/HEAST	1000	1	2.7E-06	2.0E-05	
Nickel	8.2E-08	1.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	
Thallium	5.3E-09	3.9E-08	No	7E-05		Alopecia;Inc. SGOT,LDH levels	Diet/HEAST	3000	1	7.6E-05	5.6E-04	
Vanadium	1.3E-07	3.0E-07	No	7E-03		No adverse effects	Water/HEAST	100	1	1.8E-05	4.3E-05	
Zinc	4.7E-07	3.0E-06	No	2E-01		Anemia	Therapeutic/HEAST	10	1	2.4E-06	1.5E-05	
VOLATILES												
1,1-Dichloroethene	1.9E-11	3.9E-11	No	9E-03	Medium	Hepatic lesions	Water/IRIS	1000	1	2.1E-09	4.3E-09	
1,1,1-Trichloroethane	1.9E-11	4.5E-11	No	9E-02	Medium	No adverse effects	Inhalation/IRIS	1000	1	2.2E-10	4.9E-10	
1,1,2-Trichloroethane	1.9E-11	4.5E-11	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	4.9E-09	1.1E-08	
1,1,2,2-Tetrachloroethane	2.3E-11	4.5E-11	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloroethane	1.9E-11	3.9E-11	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloropropane	1.9E-11	4.5E-11	No	NA			NA/IRIS,HEAST			NA	NA	
1,3-Dichloropropene(cis)	1.9E-11	4.5E-11	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	6.5E-08	1.5E-07	
1,3-Dichloropropene(trans)	1.9E-11	4.5E-11	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	6.5E-08	1.5E-07	
2-Butanone	0.0E+00	0.0E+00	No	5E-02	Medium	Fetotoxicity	Inhalation/IRIS	1000	1	0.0E+00	0.0E+00	
2-Hexanone	4.5E-11	8.9E-11	No	NA			NA/IRIS,HEAST			NA	NA	
4-Methyl-2-Pentanone	4.5E-11	8.9E-11	No	5E-02		Liver and kidney effects	Gavage/HEAST	1000	1	9.0E-10	1.8E-09	
Acetone	4.9E-11	1.1E-09	No	1E-01	Low	Inc. kidney,liver weights	Gavage/IRIS	1000	1	4.9E-10	1.1E-08	
Benzene	1.9E-11	4.5E-11	No	NA			NA/IRIS,HEAST			NA	NA	
Bromodichloromethane	1.9E-11	4.5E-11	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	9.7E-10	2.2E-09	
Bromoform	1.9E-11	4.5E-11	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	9.7E-10	2.2E-09	
Carbon Tetrachloride	1.9E-11	4.5E-11	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	2.8E-08	6.4E-08	
Chlorobenzene	2.3E-11	4.5E-11	No	2E-02	Medium	Liver and kidney effects	Oral/IRIS,HEAST	1000		1.1E-09	2.2E-09	
Chloroform	1.9E-11	3.9E-11	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	1.9E-09	3.9E-09	
Chloromethane	3.7E-11	7.8E-11	No	NA			NA/IRIS,HEAST			NA	NA	
Dibromochloromethane	1.9E-11	4.5E-11	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	9.7E-10	2.2E-09	
Ethylbenzene	2.3E-11	4.5E-11	No	1E-01	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	2.3E-10	4.5E-10	
Methylene Chloride	0.0E+00	0.0E+00	No	6E-02	Medium	Liver toxicity	Water/IRIS	100	1	0.0E+00	0.0E+00	
Styrene	2.3E-11	4.5E-11	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	1.1E-10	2.2E-10	
Tetrachloroethene	2.0E-11	4.5E-11	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	2.0E-09	4.5E-09	
Toluene	2.2E-11	4.5E-11	No	2E-01	Medium	Liver and kidney weight	Gavage/IRIS	1000	1	1.1E-10	2.2E-10	
Trichloroethene	1.9E-11	4.5E-11	No	NA			NA/IRIS,HEAST			NA	NA	
Vinyl chloride	3.7E-11	7.8E-11	No	NA			NA/IRIS,HEAST			N	NA	
Xylenes	2.3E-11	4.5E-11	No	2E+00	Medium	Hyperactivity;Inc. mortality	Gavage/IRIS	100	1	A	2.2E-11	

TABLE B.1-6 (cont.)
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT	HAZARD QUOTIENT
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											
SEMIVOLATILES											
1,3-Dichlorobenzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	1.6E-09	6.7E-09	No	4E-03			NA/IRIS,HEAST			4.1E-07	1.7E-06
2,4-Dinitrophenol	0.0E+00	0.0E+00	No	2E-03	Low	Cataract formation	Human/IRIS	1000	1	0.0E+00	0.0E+00
3-Nitroaniline	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	1.5E-09	2.1E-09	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	2.6E-08	3.4E-08
Acenaphthylene	1.4E-09	8.4E-09	No	4E-03			NA/IRIS,HEAST			3.5E-07	2.1E-06
Anthracene	1.5E-09	1.3E-08	No	3E-01	Low	No adverse effects	Gavage/IRIS,HEAST	3000	1	5.0E-09	4.5E-08
Benzo(a)anthracene	2.4E-09	5.5E-08	No	4E-03			NA/IRIS,HEAST			6.1E-07	1.4E-05
Benzo(a)pyrene	2.5E-09	4.2E-08	No	4E-03			NA/IRIS,HEAST			6.3E-07	1.0E-05
Benzo(b)fluoranthene	2.7E-09	3.6E-08	No	4E-03			NA/IRIS,HEAST			6.6E-07	8.9E-06
Benzo(ghi)perylene	2.1E-09	1.9E-08	No	4E-03			NA/IRIS,HEAST			5.3E-07	4.7E-06
Benzo(k)fluoranthene	2.5E-09	3.8E-08	No	4E-03			NA/IRIS,HEAST			6.3E-07	9.5E-06
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	2E-02	Medium	Increased liver weight	Diet/IRIS,HEAST	1000	1	0.0E+00	0.0E+00
Chrysene	2.8E-09	6.1E-08	No	4E-03			NA/IRIS,HEAST			7.0E-07	1.5E-05
Dibenzo(a,h)anthracene	1.5E-09	8.9E-09	No	4E-03			NA/IRIS,HEAST			3.9E-07	2.2E-06
Fluoranthene	3.6E-09	8.4E-08	No	4E-02	Low	Neuropathy;liver,blood effects	Gavage/IRIS	3000	1	9.0E-08	2.1E-06
Fluorene	1.6E-09	1.4E-08	No	4E-02	Low	Neuropathy;liver,blood effects	Gavage/IRIS	3000	1	4.0E-08	3.5E-07
Indeno(123cd)pyrene	2.1E-09	1.8E-08	No	4E-03			NA/IRIS,HEAST			5.4E-07	4.6E-06
Naphthalene	1.4E-09	2.5E-09	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000	1	3.5E-07	6.3E-07
Phenanthrene	2.4E-09	7.8E-08	No	4E-03			NA/IRIS,HEAST			5.9E-07	1.9E-05
Pyrene	3.3E-09	8.4E-08	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.1E-07	2.8E-06
PESTICIDES											
4,4'-DDD	4.7E-11	8.4E-12	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	5.3E-11	2.2E-10	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	1.1E-10	7.5E-10	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	2.2E-07	1.5E-06
PCB's											
Aroclor-1260	4.6E-10	4.5E-10	No	NA			NA/IRIS,HEAST			NA	NA

TABLE B.2-1
SCENARIO 2
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABSORBED DOSE NONCANCER-MEAN (mg/kg/day)	ABSORBED DOSE CANCER-MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER-MAX (mg/kg/day)	ABSORBED DOSE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SKIN CONTACT RATE (mg/day)	ABSORPTION FACTOR (unitless)	EXPOSURE FREQUENCY (days/year)	EXPOSURE DURATION (years)	BODY WEIGHT (kg)	AVG.TIME NONCANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.98	1810.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.27	35.95	1.0E-06	500	0.00	250	1	70.0	365	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	48.10	1360.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.33	1.40	1.0E-06	500	0.00	250	1	70.0	365	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.83	32.90	1.0E-06	500	0.00	250	1	70.0	365	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	27.70	274.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.43	74.30	1.0E-06	500	0.00	250	1	70.0	365	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	226.25	24400.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	107.44	6920.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2202.64	4180.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.17	1.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	39.57	427.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.93	9.10	1.0E-06	500	0.00	250	1	70.0	365	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	47.92	645.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	540.12	23935.00	1.0E-06	500	0.00	250	1	70.0	365	25550
VOLATILES														
1,1-Dichloroethene	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,1-Trichloroethane	8.2E-09	1.2E-10	4.9E-07	7.0E-09	0.00	0.20	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2-Trichloroethane	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2,2-Tetrachloroethane	8.7E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloroethane	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloropropane	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
1,3-Dichloropropene(cis)	8.1E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
1,3-Dichloropropene(trans)	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
2-Hexanone	6.8E-08	9.7E-10	4.2E-06	5.9E-08	0.03	1.70	1.0E-06	500	0.50	250	1	70.0	365	25550
2-Butanone	1.5E-08	2.2E-10	3.9E-06	5.6E-08	0.01	1.60	1.0E-06	500	0.50	250	1	70.0	365	25550
4-Methyl-2-Pentanone	1.6E-08	2.3E-10	3.9E-06	5.6E-08	0.01	1.60	1.0E-06	500	0.50	250	1	70.0	365	25550
Acetone	2.3E-08	3.2E-10	1.5E-05	2.2E-07	0.01	6.20	1.0E-06	500	0.50	250	1	70.0	365	25550
Benzene	9.5E-09	1.4E-10	7.7E-07	1.1E-08	0.00	0.32	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromodichloromethane	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromoform	8.3E-09	1.2E-10	2.0E-08	2.9E-08	0.00	0.82	1.0E-06	500	0.50	250	1	70.0	365	25550
Carbon Tetrachloride	8.8E-09	1.3E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
Chlorobenzene	9.5E-09	1.4E-10	3.7E-06	5.2E-08	0.00	1.50	1.0E-06	500	0.50	250	1	70.0	365	25550
Chloromethane	7.8E-09	1.1E-10	9.6E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
Chloroform	1.4E-08	2.0E-10	1.9E-07	2.8E-09	0.01	0.08	1.0E-06	500	0.50	250	1	70.0	365	25550
Dibromochloromethane	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
Ethylbenzene	9.1E-09	1.3E-10	5.6E-06	8.0E-08	0.00	2.30	1.0E-06	500	0.50	250	1	70.0	365	25550
Methylene Chloride	0.0E+00	0.0E+00	1.5E-07	2.1E-09	NA	0.06	1.0E-06	500	0.50	250	1	70.0	365	25550
Styrene	8.7E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
Tetachloroethene	7.9E-09	1.1E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
Toluene	8.8E-09	1.3E-10	1.8E-06	2.5E-08	0.00	0.72	1.0E-06	500	0.50	250	1	70.0	365	25550
Trichloroethene	8.2E-09	1.2E-10	9.8E-08	1.4E-09	0.00	0.04	1.0E-06	500	0.50	250	1	70.0	365	25550
Vinyl chloride	1.4E-08	1.9E-10	1.9E-07	2.8E-09	0.01	0.08	1.0E-06	500	0.50	250	1	70.0	365	25550
Xylenes	9.5E-09	1.4E-10	2.7E-05	3.8E-07	0.00	11.00	1.0E-06	500	0.50	250	1	70.0	365	25550

TABLE B.2-1 (cont.)
SCENARIO 2
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABSORBED DOSE NONCANCER-MEAN (mg/kg/day)	ABSORBED DOSE CANCER-MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER-MAX (mg/kg/day)	ABSORBED DOSE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SKIN CONTACT RATE (mg/day)	ABSORPTION FACTOR (unitless)	EXPOSURE FREQUENCY (days/year)	EXPOSURE DURATION (years)	BODY WEIGHT (kg)	AVG.TIME NONCANCER (days)	AVG. TIME CANCER (days)
SEMIVOLATILES														
1,3-Dichlorobenzene	9.9E-08	1.4E-09	3.9E-07	5.6E-09	0.41	1.60	1.0E-06	500	0.05	250	1	70.0	365	25550
1,4-Dichlorobenzene	1.0E-07	1.5E-09	1.9E-06	2.8E-08	0.42	7.90	1.0E-06	500	0.05	250	1	70.0	365	25550
2-Methylnaphthalene	1.5E-07	2.1E-09	5.9E-06	8.4E-08	0.61	24.00	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4-Dinitrophenol	5.2E-07	7.5E-09	2.7E-06	3.8E-08	2.14	11.00	1.0E-06	500	0.05	250	1	70.0	365	25550
3-Nitroanline	5.5E-07	7.8E-09	3.2E-06	4.5E-08	2.25	13.00	1.0E-06	500	0.05	250	1	70.0	365	25550
3,3-Dichlorobenzidine	2.4E-07	3.4E-09	1.1E-06	1.5E-08	0.97	4.40	1.0E-06	500	0.05	250	1	70.0	365	25550
Acenaphthene	1.0E-07	1.4E-09	1.3E-06	1.9E-08	0.41	5.50	1.0E-06	500	0.05	250	1	70.0	365	25550
Acenaphthylene	9.6E-08	1.4E-09	5.4E-07	7.7E-09	0.39	2.20	1.0E-06	500	0.05	250	1	70.0	365	25550
Anthracene	1.0E-07	1.4E-09	9.8E-07	1.4E-08	0.41	4.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)anthracene	8.1E-08	1.2E-09	1.7E-06	2.4E-08	0.33	6.80	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)pyrene	8.5E-08	1.2E-09	1.4E-06	2.0E-08	0.35	5.60	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(b)fluoranthene	8.5E-08	1.2E-09	1.2E-06	1.7E-08	0.35	4.80	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(ghi)perylene	9.8E-08	1.4E-09	9.1E-07	1.3E-08	0.40	3.70	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(k)fluoranthene	7.9E-08	1.1E-09	8.8E-07	1.3E-08	0.32	3.60	1.0E-06	500	0.05	250	1	70.0	365	25550
Bis(2ethylhexyl)phthalate	1.0E-07	1.4E-09	5.1E-07	7.3E-09	0.41	2.10	1.0E-06	500	0.05	250	1	70.0	365	25550
Chysene	8.9E-08	1.3E-09	1.6E-06	2.2E-08	0.37	6.40	1.0E-06	500	0.05	250	1	70.0	365	25550
Dibenzo(a,h)anthracene	1.1E-07	1.5E-09	5.1E-07	7.3E-09	0.44	2.10	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluoranthene	9.9E-08	1.4E-09	4.4E-06	6.3E-08	0.41	18.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluorene	1.2E-07	1.7E-09	2.4E-06	3.5E-08	0.49	10.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Indeno(123cd)pyrene	1.0E-07	1.4E-09	7.8E-07	1.1E-08	0.41	3.20	1.0E-06	500	0.05	250	1	70.0	365	25550
Naphthalene	1.1E-07	1.6E-09	4.2E-06	5.9E-08	0.47	17.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenanthrene	1.6E-07	2.3E-09	6.8E-06	9.8E-08	0.67	28.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Pyrene	1.1E-07	1.5E-09	3.7E-06	5.2E-08	0.44	15.00	1.0E-06	500	0.05	250	1	70.0	365	25550
PESTICIDES														
4,4'-DDD	9.8E-09	1.4E-10	1.4E-09	2.0E-11	0.04	0.01	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDE	9.1E-09	1.3E-10	1.1E-09	1.6E-11	0.04	0.00	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDT	8.8E-09	1.3E-10	4.2E-09	5.9E-11	0.04	0.02	1.0E-06	500	0.05	250	1	70.0	365	25550
PESTICIDES														
Aroclor-1260	9.9E-08	1.4E-09	6.6E-06	9.4E-08	0.41	27.00	1.0E-06	500	0.05	250	1	70.0	365	25550

TABLE B.2-2
SCENARIO 2
INGESTION OF CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	INGESTION RATE (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EXPOSURE FREQUENCY (days/year)	EXPOSURE DURATION (years)	RELATIVE ABS. FACTOR (unitless)	BODY WEIGHT (kg)	AVG.TIME NONCANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Antimony	8.9E-05	1.3E-08	8.5E-03	1.2E-04	18.96	1810.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Arsenic	2.5E-05	3.5E-07	1.7E-04	2.4E-06	5.27	35.95	480	1.0E-06	250	1	1.00	70.0	365	25550
Barium	2.3E-04	3.2E-08	6.4E-03	9.1E-05	48.10	1360.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Beryllium	1.5E-08	2.2E-08	6.6E-06	9.4E-08	0.33	1.40	480	1.0E-06	250	1	1.00	70.0	365	25550
Cadmium	8.6E-08	1.2E-07	1.5E-04	2.2E-06	1.83	32.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Chromium	1.3E-04	1.9E-08	1.3E-03	1.8E-05	27.70	274.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Cobalt	6.3E-05	9.0E-07	3.5E-04	5.0E-06	13.43	74.30	480	1.0E-06	250	1	1.00	70.0	365	25550
Copper	1.1E-03	1.5E-05	1.1E-01	1.6E-03	226.25	24400.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Lead	5.0E-04	7.2E-06	3.3E-02	4.6E-04	107.44	6920.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Magnesium	1.0E-02	1.5E-04	2.0E-02	2.8E-04	2202.64	4180.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Mercury	8.2E-07	1.2E-08	4.7E-06	6.7E-08	0.17	1.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Nickel	1.9E-04	2.7E-06	2.0E-03	2.9E-05	39.57	427.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Thallium	4.4E-06	6.3E-08	4.3E-05	6.1E-07	0.93	9.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Vanadium	2.3E-04	3.2E-06	3.0E-03	4.3E-05	47.92	645.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Zinc	2.5E-03	3.6E-05	1.1E-01	1.6E-03	540.12	23935.00	480	1.0E-06	250	1	1.00	70.0	365	25550
VOLATILES														
1,1-Dichloroethene	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,1-Trichloroethane	1.6E-08	2.2E-10	9.4E-07	1.3E-08	0.00	0.20	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2-Trichloroethane	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2,2-Tetrachloroethane	1.7E-08	2.4E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloroethane	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloropropane	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
1,3-Dichloropropene(cis)	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
1,3-Dichloropropene(trans)	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
2-Hexanone	1.3E-07	1.9E-09	8.0E-06	1.1E-07	0.03	1.70	480	1.0E-06	250	1	1.00	70.0	365	25550
2-Butanone	2.9E-08	4.1E-10	7.5E-06	1.1E-07	0.01	1.60	480	1.0E-06	250	1	1.00	70.0	365	25550
4-Methyl-2-Pentanone	3.1E-08	4.4E-10	7.5E-06	1.1E-07	0.01	1.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Acetone	4.4E-08	6.2E-10	2.9E-05	4.2E-07	0.01	6.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzene	1.6E-08	2.6E-10	1.5E-06	2.1E-08	0.00	0.32	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromodichloromethane	1.6E-08	2.3E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromoform	1.6E-08	2.3E-10	3.9E-06	5.5E-08	0.00	0.82	480	1.0E-06	250	1	1.00	70.0	365	25550
Carbon Tetrachloride	1.7E-08	2.4E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
Chlorobenzene	1.8E-08	2.6E-10	7.0E-06	1.0E-07	0.00	1.50	480	1.0E-06	250	1	1.00	70.0	365	25550
Chloromethane	1.5E-08	2.1E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
Chloroform	2.7E-08	3.9E-10	3.7E-07	5.3E-09	0.01	0.08	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibromochloromethane	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
Ethylbenzene	1.8E-08	2.5E-10	1.1E-05	1.5E-07	0.00	2.30	480	1.0E-06	250	1	1.00	70.0	365	25550
Methylene Chloride	0.0E+00	0.0E+00	2.8E-07	4.0E-09	NA	0.06	480	1.0E-06	250	1	1.00	70.0	365	25550
Styrene	1.7E-08	2.4E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
Tetrachloroethene	1.5E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
Toluene	1.7E-08	2.4E-10	3.4E-06	4.8E-08	0.00	0.72	480	1.0E-06	250	1	1.00	70.0	365	25550
Trichloroethene	1.6E-08	2.2E-10	1.9E-07	2.7E-09	0.00	0.04	480	1.0E-06	250	1	1.00	70.0	365	25550
Vinyl chloride	2.6E-08	3.7E-10	3.7E-07	5.3E-09	0.01	0.08	480	1.0E-06	250	1	1.00	70.0	365	25550
Xylenes	1.8E-08	2.6E-10	5.2E-05	7.4E-07	0.00	11.00	480	1.0E-06	250	1	1.00	70.0	365	25550

TABLE B.2-2 (cont.)
SCENARIO 2
INGESTION OF CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	INGESTION RATE (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EXPOSURE FREQUENCY (days/year)	EXPOSURE DURATION (years)	RELATIVE ABS. FACTOR (unitless)	BODY WEIGHT (kg)	AVG.TIME NONCANCER (days)	AVG. TIME CANCER (days)
SEMIVOLATILES														
1,3-Dichlorobenzene	1.9E-08	2.7E-08	7.5E-06	1.1E-07	0.41	1.60	480	1.0E-06	250	1	1.00	70.0	365	25550
1,4-Dichlorobenzene	2.0E-08	2.8E-08	3.7E-05	5.3E-07	0.42	7.90	480	1.0E-06	250	1	1.00	70.0	365	25550
2-Methylnaphthalene	2.8E-08	4.1E-08	1.1E-04	1.6E-06	0.61	24.00	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4-Dinitrophenol	1.0E-05	1.4E-07	5.2E-05	7.4E-07	2.14	11.00	480	1.0E-06	250	1	1.00	70.0	365	25550
3-Nitroaniline	1.1E-05	1.5E-07	6.1E-05	8.7E-07	2.25	13.00	480	1.0E-06	250	1	1.00	70.0	365	25550
3,3-Dichlorobenzidine	4.6E-08	6.5E-08	2.1E-05	3.0E-07	0.97	4.40	480	1.0E-06	250	1	1.00	70.0	365	25550
Acenaphthene	1.9E-08	2.8E-08	2.6E-05	3.7E-07	0.41	5.50	480	1.0E-06	250	1	1.00	70.0	365	25550
Acenaphthylene	1.9E-08	2.6E-08	1.0E-05	1.5E-07	0.39	2.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Anthracene	1.9E-08	2.6E-08	1.9E-05	2.7E-07	0.41	4.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)anthracene	1.6E-08	2.2E-08	3.2E-05	4.6E-07	0.33	6.80	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)pyrene	1.6E-08	2.3E-08	2.6E-05	3.8E-07	0.35	5.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(b)fluoranthene	1.6E-08	2.3E-08	2.3E-05	3.2E-07	0.35	4.80	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(ghi)perylene	1.9E-08	2.7E-08	1.7E-05	2.5E-07	0.40	3.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(k)fluoranthene	1.5E-08	2.2E-08	1.7E-05	2.4E-07	0.32	3.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Bis(2ethylhexyl)phthalate	1.9E-08	2.8E-08	9.9E-06	1.4E-07	0.41	2.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Chrysene	1.7E-08	2.4E-08	3.0E-05	4.3E-07	0.37	6.40	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibenzo(a,h)anthracene	2.0E-08	2.9E-08	9.9E-06	1.4E-07	0.44	2.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluoranthene	1.9E-08	2.7E-08	8.5E-05	1.2E-06	0.41	18.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluorene	2.3E-08	3.3E-08	4.7E-05	6.7E-07	0.49	10.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Indeno(123cd)pyrene	1.9E-08	2.7E-08	1.5E-05	2.1E-07	0.41	3.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Naphthalene	2.2E-08	3.2E-08	8.0E-05	1.1E-06	0.47	17.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Phenanthrene	3.1E-08	4.5E-08	1.3E-04	1.9E-06	0.67	28.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Pyrene	2.0E-08	2.9E-08	7.0E-05	1.0E-06	0.44	15.00	480	1.0E-06	250	1	1.00	70.0	365	25550
PESTICIDES														
4,4'-DDD	5.7E-08	8.1E-10	7.9E-09	1.1E-10	0.04	0.01	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDE	5.3E-08	7.5E-10	6.6E-09	9.5E-11	0.04	0.00	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDT	5.1E-08	7.3E-10	2.4E-08	3.4E-10	0.04	0.02	480	1.0E-06	250	1	0.30	70.0	365	25550
PESTICIDES														
Aroclor-1260	5.7E-07	8.2E-09	3.8E-05	5.4E-07	0.41	27.00	480	1.0E-06	250	1	0.30	70.0	365	25550

TABLE B.2-3
SCENARIO 2
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	INHALATION RATE (m3/day)	EXPOSURE FREQUENCY (days/year)	EXPOSURE DURATION (years)	RELATIVE ABS. FACTOR (unitless)	BODY WEIGHT (kg)	AVG. TIME NONCANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Antimony	3.51E-09	5.02E-11	3.35E-07	4.79E-09	9.47E-10	18.96	1810.00	20	250	1	1.0	70	365	25550
Arsenic	9.76E-10	1.39E-11	6.66E-09	9.52E-11	9.47E-10	5.27	35.95	20	250	1	1.0	70	365	25550
Barium	8.91E-09	1.27E-10	2.52E-07	3.60E-09	9.47E-10	48.10	1360.00	20	250	1	1.0	70	365	25550
Beryllium	6.10E-11	8.72E-13	2.59E-10	3.71E-12	9.47E-10	0.33	1.40	20	250	1	1.0	70	365	25550
Cadmium	3.39E-10	4.84E-12	6.10E-09	8.71E-11	9.47E-10	1.83	32.90	20	250	1	1.0	70	365	25550
Chromium	5.13E-09	7.33E-11	5.08E-08	7.25E-10	9.47E-10	27.70	274.00	20	250	1	1.0	70	365	25550
Cobalt	2.49E-09	3.56E-11	1.38E-08	1.97E-10	9.47E-10	13.43	74.30	20	250	1	1.0	70	365	25550
Copper	4.16E-08	5.99E-10	4.52E-06	6.46E-08	9.47E-10	226.25	24400.00	20	250	1	1.0	70	365	25550
Lead	1.99E-08	2.84E-10	1.28E-06	1.83E-08	9.47E-10	107.44	6920.00	20	250	1	1.0	70	365	25550
Magnesium	4.08E-07	5.83E-09	7.75E-07	1.11E-08	9.47E-10	2202.64	4180.00	20	250	1	1.0	70	365	25550
Mercury	3.23E-11	4.62E-13	1.85E-10	2.65E-12	9.47E-10	0.17	1.00	20	250	1	1.0	70	365	25550
Nickel	7.33E-09	1.05E-10	7.91E-08	1.13E-09	9.47E-10	39.57	427.00	20	250	1	1.0	70	365	25550
Thallium	1.73E-10	2.47E-12	1.69E-09	2.41E-11	9.47E-10	0.93	9.10	20	250	1	1.0	70	365	25550
Vanadium	8.88E-09	1.27E-10	1.20E-07	1.71E-09	9.47E-10	47.92	645.00	20	250	1	1.0	70	365	25550
Zinc	1.00E-07	1.43E-09	4.44E-06	6.34E-08	9.47E-10	540.12	23935.00	20	250	1	1.0	70	365	25550
VOLATILES														
1,1-Dichloroethene	6.19E-13	8.85E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
1,1,1-Trichloroethane	6.19E-13	8.85E-15	3.71E-11	5.29E-13	9.47E-10	0.00	0.20	20	250	1	1.0	70	365	25550
1,1,2-Trichloroethane	6.19E-13	8.85E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
1,1,2,2-Tetrachloroethane	6.56E-13	9.38E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
1,2-Dichloroethane	6.19E-13	8.85E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
1,2-Dichloropropane	6.19E-13	8.85E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
1,3-Dichloropropene(cis)	6.16E-13	8.80E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
1,3-Dichloropropene(trans)	6.19E-13	8.85E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
2-Hexanone	5.13E-12	7.32E-14	3.15E-10	4.50E-12	9.47E-10	0.03	1.70	20	250	1	1.0	70	365	25550
2-Butanone	1.14E-12	1.63E-14	2.97E-10	4.24E-12	9.47E-10	0.01	1.80	20	250	1	1.0	70	365	25550
4-Methyl-2-Pentanone	1.20E-12	1.72E-14	2.97E-10	4.24E-12	9.47E-10	0.01	1.80	20	250	1	1.0	70	365	25550
Acetone	1.72E-12	2.46E-14	1.15E-09	1.64E-11	9.47E-10	0.01	6.20	20	250	1	1.0	70	365	25550
Benzene	7.22E-13	1.03E-14	5.87E-11	8.38E-13	9.47E-10	0.00	0.32	20	250	1	1.0	70	365	25550
Bromodichloromethane	6.23E-13	8.89E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
Bromoform	6.25E-13	8.93E-15	1.52E-10	2.17E-12	9.47E-10	0.00	0.82	20	250	1	1.0	70	365	25550
Carbon Tetrachloride	6.69E-13	9.56E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
Chlorobenzene	7.18E-13	1.03E-14	2.78E-10	3.97E-12	9.47E-10	0.00	1.50	20	250	1	1.0	70	365	25550
Chloromethane	5.92E-13	8.46E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
Chloroform	1.08E-12	1.54E-14	1.46E-11	2.09E-13	9.47E-10	0.01	0.08	20	250	1	1.0	70	365	25550
Dibromochloromethane	6.19E-13	8.85E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
Ethylbenzene	6.92E-13	9.89E-15	4.26E-10	6.09E-12	9.47E-10	0.00	2.30	20	250	1	1.0	70	365	25550
Methylene Chloride	0.00E+00	0.00E+00	1.11E-11	1.59E-13	9.47E-10	NA	0.08	20	250	1	1.0	70	365	25550
Styrene	6.56E-13	9.38E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
Tetrachloroethene	5.96E-13	8.51E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
Toluene	6.67E-13	9.53E-15	1.33E-10	1.91E-12	9.47E-10	0.00	0.72	20	250	1	1.0	70	365	25550
Trichloroethene	6.18E-13	8.82E-15	7.41E-12	1.06E-13	9.47E-10	0.00	0.04	20	250	1	1.0	70	365	25550
Vinyl chloride	1.03E-12	1.47E-14	1.46E-11	2.09E-13	9.47E-10	0.01	0.08	20	250	1	1.0	70	365	25550
Xylenes	7.17E-13	1.02E-14	2.04E-09	2.91E-11	9.47E-10	0.00	11.00	20	250	1	1.0	70	365	25550

TABLE B.2-3 (cont.)
SCENARIO 2
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	INHALATION RATE (m3/day)	EXPOSURE FREQUENCY (days/year)	EXPOSURE DURATION (years)	RELATIVE ABS. FACTOR (unitless)	BODY WEIGHT (kg)	AVG. TIME NONCANCER (days)	AVG. TIME CANCER (days)
SEMIVOLATILES														
1,3-Dichlorobenzene	7.51E-11	1.07E-12	2.97E-10	4.24E-12	9.47E-10	0.41	1.60	20	250	1	1.0	70	365	25550
1,4-Dichlorobenzene	7.85E-11	1.12E-12	1.46E-09	2.09E-11	9.47E-10	0.42	7.90	20	250	1	1.0	70	365	25550
2-Methylnaphthalene	1.12E-10	1.60E-12	4.45E-09	6.35E-11	9.47E-10	0.61	24.00	20	250	1	1.0	70	365	25550
2,4-Dinitrophenol	3.98E-10	5.69E-12	2.04E-09	2.91E-11	9.47E-10	2.14	11.00	20	250	1	1.0	70	365	25550
3-Nitroaniline	4.16E-10	5.95E-12	2.41E-09	3.44E-11	9.47E-10	2.25	13.00	20	250	1	1.0	70	365	25550
3,3-Dichlorobenzidine	1.81E-10	2.58E-12	8.15E-10	1.16E-11	9.47E-10	0.97	4.40	20	250	1	1.0	70	365	25550
Acenaphthene	7.64E-11	1.09E-12	1.02E-09	1.46E-11	9.47E-10	0.41	5.50	20	250	1	1.0	70	365	25550
Acenaphthylene	7.30E-11	1.04E-12	4.09E-10	5.82E-12	9.47E-10	0.39	2.20	20	250	1	1.0	70	365	25550
Anthracene	7.64E-11	1.09E-12	7.41E-10	1.06E-11	9.47E-10	0.41	4.00	20	250	1	1.0	70	365	25550
Benzo(a)anthracene	6.13E-11	8.76E-13	1.26E-09	1.80E-11	9.47E-10	0.33	6.80	20	250	1	1.0	70	365	25550
Benzo(a)pyrene	6.41E-11	9.15E-13	1.04E-09	1.48E-11	9.47E-10	0.35	5.60	20	250	1	1.0	70	365	25550
Benzo(b)fluoranthene	6.48E-11	9.25E-13	8.90E-10	1.27E-11	9.47E-10	0.35	4.80	20	250	1	1.0	70	365	25550
Benzo(ghi)perylene	7.44E-11	1.06E-12	6.86E-10	9.80E-12	9.47E-10	0.40	3.70	20	250	1	1.0	70	365	25550
Benzo(k)fluoranthene	6.00E-11	8.57E-13	6.67E-10	9.53E-12	9.47E-10	0.32	3.60	20	250	1	1.0	70	365	25550
Bis(2ethylhexyl)phthalate	7.66E-11	1.09E-12	3.89E-10	5.56E-12	9.47E-10	0.41	2.10	20	250	1	1.0	70	365	25550
Chrysene	6.77E-11	9.67E-13	1.18E-09	1.69E-11	9.47E-10	0.37	6.40	20	250	1	1.0	70	365	25550
Dibenzo(a,h)anthracene	8.08E-11	1.15E-12	3.89E-10	5.56E-12	9.47E-10	0.44	2.10	20	250	1	1.0	70	365	25550
Fluoranthene	7.52E-11	1.07E-12	3.34E-09	4.77E-11	9.47E-10	0.41	18.00	20	250	1	1.0	70	365	25550
Fluorene	9.00E-11	1.29E-12	1.85E-09	2.65E-11	9.47E-10	0.49	10.00	20	250	1	1.0	70	365	25550
Indeno(123cd)pyrene	7.59E-11	1.08E-12	5.93E-10	8.47E-12	9.47E-10	0.41	3.20	20	250	1	1.0	70	365	25550
Naphthalene	8.71E-11	1.24E-12	3.15E-09	4.50E-11	9.47E-10	0.47	17.00	20	250	1	1.0	70	365	25550
Phenanthrene	1.23E-10	1.76E-12	5.19E-09	7.41E-11	9.47E-10	0.67	28.00	20	250	1	1.0	70	365	25550
Pyrene	8.07E-11	1.15E-12	2.78E-09	3.97E-11	9.47E-10	0.44	15.00	20	250	1	1.0	70	365	25550
PESTICIDES														
4,4'-DDD	7.44E-12	1.06E-13	1.04E-12	1.48E-14	9.47E-10	0.04	0.01	20	250	1	1.0	70	365	25550
4,4'-DDE	6.82E-12	9.69E-14	8.71E-13	1.24E-14	9.47E-10	0.04	0.00	20	250	1	1.0	70	365	25550
4,4'-DDT	6.70E-12	9.57E-14	3.15E-12	4.50E-14	9.47E-10	0.04	0.02	20	250	1	1.0	70	365	25550
PCB's														
Aroclor-1260	7.52E-11	1.07E-12	5.00E-09	7.15E-11	9.47E-10	0.41	27.00	20	250	1	1.0	70	365	25550

TABLE B.2-4
SCENARIO 2
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAXE (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK - MEAN	CHEMICAL SPECIFIC RISK - MAX	TOTAL PATHWAY RISK	TOTAL EXPOSURE RISK	
										7.4E-07	3.5E-05	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										1.3E-08	2.8E-06	MEAN
VOLATILES												
1,1-Dichloroethene	1.2E-10	1.4E-09	No	6.00E-01	C	Adrenal pheochromocytomas	Oral/IRIS	7E-11	8E-10			
1,1,1-Trichloroethane	1.2E-10	7.0E-09	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
1,1,2-Trichloroethane	1.2E-10	1.4E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	7E-12	8E-11			
1,1,2,2-Tetrachloroethane	1.2E-10	1.4E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2E-11	3E-10			
1,2-Dichloroethane	1.2E-10	1.4E-09	No	9.10E-02	B2	Hemanglosarcoma	Gavage/IRIS	1E-11	1E-10			
1,2-Dichloropropane	1.2E-10	1.4E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	8E-12	1E-10			
1,3-Dichloropropene(cis)	1.2E-10	1.4E-09	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	2E-11	3E-10			
1,3-Dichloropropene(trans)	1.2E-10	1.4E-09	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	2E-11	3E-10			
2-Hexanone	9.7E-10	5.9E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
2-Butanone	2.2E-10	5.6E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00			
4-Methyl-2-Pentanone	2.3E-10	5.6E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00			
Acetone	3.2E-10	2.2E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Benzene	1.4E-10	1.1E-08	No	2.90E-02	A	Leukemia	Occupational/IRIS	4E-12	3E-10			
Bromodichloromethane	1.2E-10	1.4E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	2E-11	2E-10			
Bromoform	1.2E-10	2.9E-08	No	7.90E-03	B2	Intestional lesions	Gavage/IRIS	9E-13	2E-10			
Carbon Tetrachloride	1.3E-10	1.4E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	2E-11	2E-10			
Chlorobenzene	1.4E-10	5.2E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Chloromethane	1.1E-10	1.4E-09	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	7E-13	9E-12			
Chloroform	2.0E-10	2.8E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	3E-12	4E-11			
Dibromochloromethane	1.2E-10	1.4E-09	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1E-11	1E-10			
Ethylbenzene	1.3E-10	8.0E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Methylene Chloride	0.0E+00	2.1E-09	No	7.50E-03	B2	Hepatocellular carcinoma	Water/IRIS	0E+00	2E-11			
Styrene	1.2E-10	1.4E-09	No	3.00E-02	B2	Lung, bronchi	Gavage/HEAST	4E-12	4E-11			
Tetrachloroethene	1.1E-10	1.4E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	6E-12	7E-11			
Toluene	1.3E-10	2.5E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Trichloroethene	1.2E-10	1.4E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	1E-12	2E-11			
Vinyl chloride	1.9E-10	2.8E-09	No	1.90E+00	A	Lung	Diet/HEAST	4E-10	5E-09			
Xylenes	1.4E-10	3.6E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
SEMIVOLATILES												
1,3-Dichlorobenzene	1.4E-09	5.6E-09	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
1,4-Dichlorobenzene	1.5E-09	2.8E-08	No	2.40E-02	C	Liver	Gavage/HEAST	4E-11	7E-10			
2-Methylnaphthalene	2.1E-09	8.4E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00			
2,4-Dinitrophenol	7.5E-09	3.8E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00			
3-Nitroaniline	7.8E-09	4.5E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00			
3,3-Dichlorobenzidine	3.4E-09	1.5E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	2E-09	7E-09			
Acenaphthene	1.4E-09	1.9E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00			
Acenaphthylene	1.4E-09	7.7E-09	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Anthracene	1.4E-09	1.4E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Benzo(a)anthracene	1.2E-09	2.4E-08	No	NA	B2	Liver,lung,skin	IRIS	0E+00	0E+00			
Benzo(a)pyrene	1.2E-09	2.0E-08	No	NA	B2	Lung,stomach	IRIS	0E+00	0E+00			
Benzo(b)fluoranthene	1.2E-09	1.7E-08	No	NA	B2	Lung,thorax,skin	IRIS	0E+00	0E+00			
Benzo(ghi)perylene	1.4E-09	1.3E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Benzo(k)fluoranthene	1.1E-09	1.3E-08	No	NA	B2	Lung,thorax,skin	IRIS	0E+00	0E+00			
Bis(2ethylhexyl)phthalate	1.4E-09	7.3E-09	No	1.40E-02	B2	Liver	IRIS	2E-11	1E-10			
Chrysene	1.3E-09	2.2E-08	No	NA	B2	Malignant lymphoma	IRIS	0E+00	0E+00			
Dibenzo(a,h)anthracene	1.5E-09	7.3E-09	No	NA	B2	Lung,mammary	IRIS	0E+00	0E+00			
Fluoranthene	1.4E-09	6.3E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Fluorene	1.7E-09	3.5E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Indeno(123cd)pyrene	1.4E-09	1.1E-08	No	NA	B2	Lung,skin	IRIS	0E+00	0E+00			
Naphthalene	1.6E-09	5.9E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Phenanthrene	2.3E-09	9.8E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
Pyrene	1.5E-09	5.2E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00			
PESTICIDES												
4,4'-DDD	1.4E-10	2.0E-11	No	2.40E-01	B2	Liver tumor	Oral,IRIS	3E-11	5E-12			
4,4'-DDE	1.3E-10	1.6E-11	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	4E-11	6E-12			
4,4'-DDT	1.3E-10	5.9E-11	No	3.40E-01	B2	Liver tumor	Diet/IRIS	4E-11	2E-11			
PCB'S												
Aroclor-1260	1.4E-09	9.4E-08	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	1E-08	7E-07			

TABLE B.2-5
SCENARIO 2
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK - MEAN	CHEMICAL SPECIFIC RISK - MAX	TOTAL PATHWAY RISK	
										3.4E-05	MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										2.8E-06	MEAN
INORGANICS											
Antimony	1.3E-06	1.2E-04	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Arsenic	3.6E-07	2.4E-06	No	1.75E+00	A	Skin	Water/IRIS	6E-07	4E-06		
Barium	3.2E-06	9.1E-05	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Beryllium	2.2E-08	9.4E-08	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	9E-08	4E-07		
Cadmium	1.2E-07	2.2E-06	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Chromium	1.9E-06	1.6E-05	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Cobalt	9.0E-07	5.0E-06	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
Copper	1.5E-05	1.6E-03	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
Lead	7.2E-06	4.6E-04	No	NA	B2	Renal tumors	Oral/IRIS	0E+00	0E+00		
Magnesium	1.5E-04	2.8E-04	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Mercury	1.2E-08	6.7E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
Nickel	2.7E-06	2.9E-05	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Thallium	6.3E-08	6.1E-07	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Vanadium	3.2E-06	4.3E-05	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Zinc	3.6E-05	1.6E-03	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
VOLATILES											
1,1-Dichloroethene	2.2E-10	2.7E-09	No	6.00E-01	C	Adrenal pheochromocytoma	Oral/IRIS	1E-10	2E-09		
1,1,1-Trichloroethane	2.2E-10	1.3E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
1,1,2-Trichloroethane	2.2E-10	2.7E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1E-11	2E-10		
1,1,2,2-Tetrachloroethane	2.4E-10	2.7E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	5E-11	5E-10		
1,2-Dichloroethane	2.2E-10	2.7E-09	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	2E-11	2E-10		
1,2-Dichloropropane	2.2E-10	2.7E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	2E-11	2E-10		
1,3-Dichloropropene(cis)	2.2E-10	2.7E-09	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	4E-11	5E-10		
1,3-Dichloropropene(trans)	2.2E-10	2.7E-09	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	4E-11	5E-10		
2-Hexanone	1.9E-09	1.1E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
2-Butanone	4.1E-10	1.1E-07	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
4-Methyl-2-Pentanone	4.4E-10	1.1E-07	No	NA			NA/IRIS,HEAST	0E+00	0E+00		
Acetone	6.2E-10	4.2E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
Benzene	2.6E-10	2.1E-08	No	2.90E-02	A	Leukemia	Occupational/IRIS	8E-12	6E-10		
Bromodichloromethane	2.3E-10	2.7E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	3E-11	3E-10		
Bromoform	2.3E-10	5.5E-08	No	7.90E-03	B2	Intestinal lesions	Gavage/IRIS	2E-12	4E-10		
Carbon Tetrachloride	2.4E-10	2.7E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	3E-11	3E-10		
Chlorobenzene	2.6E-10	1.0E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
Chloromethane	2.1E-10	2.7E-09	No	1.30E-02	C	Kidney tumors	Inhalation/HEAST	3E-12	3E-11		
Chloroform	3.9E-10	5.3E-09	No	6.10E-03	B2	Kidney	Oral/IRIS	2E-12	3E-11		
Dibromochloromethane	2.2E-10	2.7E-09	No	0.08	C	Hepatocellular carcinoma	Gavage/IRIS	2E-11	2E-10		
Ethylbenzene	2.5E-10	1.5E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
Methylene Chloride	0.0E+00	4.0E-09	No	7.50E-03	B2	Hepatocellular carcinomas	Water/IRIS	0E+00	3E-11		
Styrene	2.4E-10	2.7E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	7E-12	8E-11		
Tetrachloroethene	2.2E-10	2.7E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	1E-11	1E-10		
Toluene	2.4E-10	4.8E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		
Trichloroethene	2.2E-10	2.7E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	2E-12	3E-11		
Vinyl chloride	3.7E-10	5.3E-09	No	1.90E+00	A	Lung	Diet/HEAST	7E-10	1E-08		
Xylenes	2.6E-10	7.4E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00		

TABLE 8.2-5 (cont.)
SCENARIO 2
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL									
SEMIVOLATILES									
1,3-Dichlorobenzene	2.7E-08	1.1E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
1,4-Dichlorobenzene	2.8E-08	5.3E-07	No	2.40E-02	C	Liver	Gavage/HEAST	7E-10	1E-08
2-Methylnaphthalene	4.1E-08	1.6E-06	No	NA			NA/IRIS,HEAST	0E+00	0E+00
2,4-Dinitrophenol	1.4E-07	7.4E-07	No	NA			NA/IRIS,HEAST	0E+00	0E+00
3-Nitroaniline	1.5E-07	8.7E-07	No	NA			NA/IRIS,HEAST	0E+00	0E+00
3,3-Dichlorobenzidine	6.5E-08	3.0E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	3E-08	1E-07
Acenaphthene	2.6E-08	3.7E-07	No	NA			NA/IRIS,HEAST	0E+00	0E+00
Acenaphthylene	2.6E-08	1.5E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Anthracene	2.8E-08	2.7E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Benzo(a)anthracene	2.2E-08	4.6E-07	No	1.15E+01	B2	Liver,lung,skin	IRIS	3E-07	5E-06
Benzo(a)pyrene	2.3E-08	3.8E-07	No	1.15E+01	B2	Lung,stomach	IRIS	3E-07	4E-06
Benzo(b)fluoranthene	2.3E-08	3.2E-07	No	1.15E+01	B2	Lung,thorax,skin	IRIS	3E-07	4E-06
Benzo(ghi)perylene	2.7E-08	2.5E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Benzo(k)fluoranthene	2.2E-08	2.4E-07	No	1.15E+01	B2	Lung,thorax,skin	IRIS	2E-07	3E-06
Bis(2ethylhexyl)phthalate	2.8E-08	1.4E-07	No	1.40E-02	B2	Liver	IRIS	4E-10	2E-09
Chrysene	2.4E-08	4.3E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	3E-07	5E-06
Dibenzo(a,h)anthracene	2.9E-08	1.4E-07	No	1.15E+01	B2	Lung,mammary	IRIS	3E-07	2E-06
Fluoranthene	2.7E-08	1.2E-06	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Fluorene	3.3E-08	6.7E-07	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Indeno(123cd)pyrene	2.7E-08	2.1E-07	No	1.15E+01	B2	Lung,skin	IRIS	3E-07	2E-06
Naphthalene	3.2E-08	1.1E-06	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Phenanthrene	4.5E-08	1.9E-06	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Pyrene	2.9E-08	1.0E-06	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
PESTICIDES									
4,4'-DDD	8.1E-10	1.1E-10	No	2.40E-01	B2	Liver tumor	Oral/IRIS	2E-10	3E-11
4,4'-DDE	7.5E-10	9.5E-11	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	3E-10	3E-11
4,4'-DDT	7.3E-10	3.4E-10	No	3.40E-01	B2	Liver tumor	Diet/IRIS	2E-10	1E-10
PCB'S									
Aroclor-1260	8.2E-09	5.4E-07	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	6E-08	4E-06

TABLE B.2-6
SCENARIO 2
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK - MEAN	CHEMICAL SPECIFIC RISK - MAX	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST										3.7E-08 MAXIMUM 3.9E-09 MEAN
INORGANICS										
Antimony	5.0E-11	4.8E-09	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
Arsenic	1.4E-11	9.5E-11	No	5.00E+01	A	Respiratory tract	Occupational/IRIS	7E-10	5E-09	
Barium	1.3E-10	3.6E-09	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
Beryllium	8.7E-13	3.7E-12	No	8.40E+00	B2	Lung	Occupational/IRIS	7E-12	3E-11	
Cadmium	4.8E-12	8.7E-11	No	6.30E+00	B1	Respiratory tract	Occupational/IRIS	3E-11	5E-10	
Chromium	7.3E-11	7.3E-10	No	4.20E+01	A	Lung	Occupational/IRIS	3E-09	3E-08	
Cobalt	3.6E-11	2.0E-10	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
Copper	6.0E-10	6.5E-08	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
Lead	2.8E-10	1.8E-08	No	NA	B2		NA/IRIS,HEAST	0E+00	0E+00	
Magnesium	5.8E-09	1.1E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
Mercury	4.6E-13	2.6E-12	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
Nickel	1.0E-10	1.1E-09	No	8.40E-01	A	Lung and nasal tumors	Occupational/IRIS	9E-11	9E-10	
Thallium	2.5E-12	2.4E-11	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
Vanadium	1.3E-10	1.7E-09	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
Zinc	1.4E-09	6.3E-08	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
VOLATILES										
1,1-Dichloroethene	8.8E-15	1.1E-13	No	1.80E-01	C	Kidney,adenocarcinoma	IRIS,HEAST	2E-15	2E-14	
1,1,1-Trichloroethane	8.8E-15	5.3E-13	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
1,1,2-Trichloroethane	8.8E-15	1.1E-13	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	5E-16	6E-15	
1,1,2,2-Tetrachloroethane	9.4E-15	1.1E-13	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2E-15	2E-14	
1,2-Dichloroethane	8.8E-15	1.1E-13	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	8E-16	1E-14	
1,2-Dichloropropane	8.8E-15	1.1E-13	No	NA	B2		NA/IRIS,HEAST	0E+00	0E+00	
1,3-Dichloropropene(cis)	8.8E-15	1.1E-13	No	1.30E-01	B2	Lung	Inhalation/HEAST	1E-15	1E-14	
1,3-Dichloropropene(trans)	8.8E-15	1.1E-13	No	1.30E-01	B2	Lung	Inhalation/HEAST	1E-15	1E-14	
2-Hexanone	7.3E-14	4.5E-12	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
2-Butanone	1.6E-14	4.2E-12	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
4-Methyl-2-Pentanone	1.7E-14	4.2E-12	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
Acetone	2.5E-14	1.6E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
Benzene	1.0E-14	8.4E-13	No	2.90E-02	A	Leukemia	Occupational/IRIS	3E-16	2E-14	
Bromodichloromethane	8.9E-15	1.1E-13	No	NA	B2		NA/IRIS,HEAST	0E+00	0E+00	
Bromoform	8.9E-15	2.2E-12	No	3.90E-03	B2	Intest.neoplastic lesions	Gavage/IRIS	3E-17	9E-15	
Carbon Tetrachloride	9.6E-15	1.1E-13	No	1.30E-01	B2	Liver	Gavage/HEAST	1E-15	1E-14	
Chlorobenzene	1.0E-14	4.0E-12	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
Chloromethane	8.5E-15	1.1E-13	No	6.00E-03	C	Kidney	Inhalation/HEAST	5E-17	6E-16	
Chloroform	1.5E-14	2.1E-13	No	8.10E-02	B2	Liver	IRIS	1E-15	2E-14	
Dibromochloromethane	8.8E-15	1.1E-13	No	NA			NA/IRIS,HEAST	0E+00	0E+00	
Ethylbenzene	9.9E-15	6.1E-12	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
Methylene Chloride	0.0E+00	1.6E-13	No	1.60E-03	B2	Lung, liver	Inhalation/IRIS	0E+00	3E-16	
Styrene	9.4E-15	1.1E-13	No	2.00E-03	B2	Leukemia	HEAST	2E-17	2E-16	
Tetrachloroethene	8.5E-15	1.1E-13	No	1.80E-03	B2	Leukemia,liver	HEAST	2E-17	2E-16	
Toluene	9.5E-15	1.9E-12	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	
Trichloroethene	8.8E-15	1.1E-13	No	1.70E-02	B2	Lung	Inhalation/HEAST	1E-16	2E-15	
Vinyl chloride	1.5E-14	2.1E-13	No	3.00E-01	A	Liver	Inhalation/HEAST	4E-15	6E-14	
Xylenes	1.0E-14	2.9E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00	

TABLE B.2-6 (cont)
SCENARIO 2
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK - MEAN	CHEMICAL SPECIFIC RISK - MAX
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST									
SEMIVOLATILES									
1,3 - Dichlorobenzene	1.1E-12	4.2E-12	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
1,4 - Dichlorobenzene	1.1E-12	2.1E-11	No	NA	C	Liver	NA/IRIS,HEAST	0E+00	0E+00
2 - Methylnaphthalene	1.6E-12	6.4E-11	No	NA			NA/IRIS,HEAST	0E+00	0E+00
2,4 - Dinitrophenol	5.7E-12	2.9E-11	No	NA			NA/IRIS,HEAST	0E+00	0E+00
3 - Nitroaniline	5.9E-12	3.4E-11	No	NA			NA/IRIS,HEAST	0E+00	0E+00
3,3 - Dichlorobenzidine	2.8E-12	1.2E-11	No	NA	B2		NA/IRIS,HEAST	0E+00	0E+00
Acenaphthene	1.1E-12	1.5E-11	No	NA			NA/IRIS,HEAST	0E+00	0E+00
Acenaphthylene	1.0E-12	5.8E-12	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Anthracene	1.1E-12	1.1E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Benzo(a)anthracene	8.8E-13	1.8E-11	No	6.10E+00	B2	Liver,lung,skin	IRIS	5E-12	1E-10
Benzo(a)pyrene	9.2E-13	1.5E-11	No	6.10E+00	B2	Stomach,resp. tract	Inhalation/HEAST	6E-12	9E-11
Benzo(b)fluoranthene	9.3E-13	1.3E-11	No	6.10E+00	B2	Lung,thorax,skin	IRIS	6E-12	8E-11
Benzo(ghi)perylene	1.1E-12	9.8E-12	No	NA	D		IRIS	0E+00	0E+00
Benzo(k)fluoranthene	8.6E-13	9.5E-12	No	6.10E+00	B2	Lung,thorax,skin	IRIS	5E-12	6E-11
Bis(2ethylhexyl)phthalate	1.1E-12	5.6E-12	No	NA	B2		HEAST	0E+00	0E+00
Chrysene	9.7E-13	1.7E-11	No	6.10E+00	B2	Malignant lymphoma	IRIS	6E-12	1E-10
Dibenzo(a,h)anthracene	1.2E-12	5.8E-12	No	6.10E+00	B2	Lung,mammary	IRIS	7E-12	3E-11
Fluoranthene	1.1E-12	4.8E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Fluorene	1.3E-12	2.6E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Indeno(123cd)pyrene	1.1E-12	8.5E-12	No	6.10E+00	B2	Lung,skin	IRIS	7E-12	5E-11
Naphthalene	1.2E-12	4.5E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Phenanthrene	1.8E-12	7.4E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
Pyrene	1.2E-12	4.0E-11	No	NA	D		NA/IRIS,HEAST	0E+00	0E+00
PESTICIDES									
4,4'-DDD	1.1E-13	1.5E-14	No	NA	B2		NA/IRIS,HEAST	0E+00	0E+00
4,4'-DDE	9.9E-14	1.2E-14	No	NA	B2		NA/IRIS,HEAST	0E+00	0E+00
4,4'-DDT	9.6E-14	4.5E-14	No	3.40E-01	B2	Liver	Diet/IRIS,HEAST	3E-14	2E-14
PESTICIDES									
Aroclor-1260	1.1E-12	7.1E-11	No	NA			NA/IRIS,HEAST	0E+00	0E+00

TABLE 8.2-7
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIF. FACTR.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												2.1E-03	2.6E+01	MAXIMUM
												3.2E-04	3.5E-01	MEAN
VOLATILES														
1,1-Dichloroethene	8.2E-09	9.8E-08	No	9E-03		Hepatic lesions	Water/HEAST	1000	1	9.1E-07	1.1E-05			
1,1,1-Trichloroethane	8.2E-09	4.9E-07	No	9E-01		Hepatotoxicity	HEAST	100	1	9.1E-09	5.4E-07			
1,1,2-Trichloroethane	8.2E-09	9.8E-08	No	4E-02		Clinical serum chemistry	Water/HEAST	100	1	2.0E-07	2.4E-06			
1,1,2,2-Tetrachloroethane	8.7E-09	9.8E-08	No	NA			NA/HEAST			NA	NA			
1,2-Dichloroethane	8.2E-09	9.8E-08	No	NA			NA/HEAST			NA	NA			
1,2-Dichloropropane	8.2E-09	9.8E-08	No	NA			NA/HEAST			NA	NA			
1,3-Dichloropropene (cis)	8.1E-09	9.8E-08	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	2.7E-06	3.3E-05			
1,3-Dichloropropene (trans)	8.2E-09	9.8E-08	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	2.7E-06	3.3E-05			
2-Hexanone	6.8E-08	4.2E-06	No	NA			NA/HEAST			NA	NA			
2-Butanone	1.5E-08	3.9E-06	No	5E-01		Fetotoxicity	HEAST	100	.	3.0E-08	7.8E-06			
4-Methyl-2-Pentanone	1.6E-08	3.9E-06	No	5E-01		Liver and kidney effects	Gavage/HEAST	100	1	3.2E-08	7.8E-06			
Acetone	2.3E-08	1.5E-05	No	1E+00		Increased liver,kidney weights	Gavage/HEAST	100	1	2.3E-08	1.5E-05			
Benzene	9.5E-09	7.7E-07	No	NA			NA/HEAST			NA	NA			
Bromodichloromethane	8.2E-09	9.8E-08	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000	1	4.1E-07	4.9E-06			
Bromoform	8.3E-09	2.0E-06	No	2E-01		Hepatic lesions	Gavage/HEAST	100	1	4.1E-08	1.0E-05			
Carbon Tetrachloride	8.8E-09	9.8E-08	No	7E-03		Liver lesions	HEAST	100	1	1.3E-06	1.4E-05			
Chlorobenzene	9.5E-09	3.7E-06	No	2E-01		Liver and kidney effects	Oral/HEAST	100	1	4.7E-08	1.8E-05			
Chloromethane	7.8E-09	9.8E-08	No	NA			NA/HEAST		1	NA	NA			
Chloroform	1.4E-08	1.9E-07	No	1E-02		Liver lesions	HEAST	1000		1.4E-06	1.9E-05			
Dibromochloromethane	8.2E-09	9.8E-08	No	2E-01		Hepatic lesions	Gavage/HEAST	100	1	4.1E-08	4.9E-07			
Ethylbenzene	9.1E-09	5.5E-06	No	1E+00		Liver and kidney toxicity	Oral/HEAST	100	1	9.1E-09	5.5E-06			
Methylene Chloride	0.0E+00	1.5E-07	No	6E-02		Liver toxicity	Water/HEAST	100	1	0.0E+00	2.4E-06			
Styrene	8.7E-09	9.8E-08	No	2E+00		RBC and liver effects	Gavage/HEAST	100	1	4.3E-09	4.9E-08			
Tetrachloroethene	7.9E-09	9.8E-08	No	1E-01		Hepatotoxicity	Gavage/HEAST	100	1	7.9E-08	9.8E-07			
Toluene	8.8E-09	1.8E-06	No	2E+00		Liver and kidney weights	HEAST	100	1	4.4E-09	8.8E-07			
Trichloroethene	8.2E-09	9.8E-08	No	NA			NA/HEAST			NA	NA			
Vinyl chloride	1.4E-08	1.9E-07	No	NA			NA/HEAST			NA	NA			
Xylenes	9.5E-09	2.7E-05	No	4E+00		No adverse effects	HEAST	100	1	2.4E-09	6.7E-06			
SEMIVOLATILES														
1,3-Dichlorobenzene	9.9E-08	3.9E-07	No	NA			NA/HEAST			NA	NA			
1,4-Dichlorobenzene	1.0E-07	1.9E-06	No	NA			NA/HEAST			NA	NA			
2-Methylnaphthalene	1.5E-07	5.9E-06	No	NA			NA/HEAST			NA	NA			
2,4-Dinitrophenol	5.2E-07	2.7E-06	No	2E-03		Cataract formation	Therapeutic/HEAST	1000	1	2.6E-04	1.3E-03			
p-Nitroaniline	5.5E-07	3.2E-06	No	NA			NA/HEAST			NA	NA			
3,3-Dichlorobenzidine	2.4E-07	1.1E-06	No	NA			NA/HEAST			NA	NA			
Acenaphthene	1.0E-07	1.3E-06	No	6E-01		Hepatotoxicity	Gavage/HEAST	300	1	1.7E-07	2.2E-06			
Acenaphthylene	9.6E-08	5.4E-07	No	4E-02			NA/HEAST			2.4E-06	1.3E-05			
Anthracene	1.0E-07	9.8E-07	No	3E+00		No adverse effects	Gavage/HEAST	300	1	3.4E-08	3.3E-07			
Benzo(a)anthracene	6.1E-08	1.7E-06	No	4E-02			NA/HEAST			2.0E-06	4.2E-05			
Benzo(a)pyrene	8.5E-08	1.4E-06	No	4E-02			NA/HEAST			2.1E-06	3.4E-05			
Benzo(b)fluoranthene	9.5E-08	1.2E-06	No	4E-02			NA/HEAST			2.1E-06	2.9E-05			
Benzo(ghi)perylene	9.8E-08	9.1E-07	No	4E-02			NA/HEAST			2.5E-06	2.3E-05			
Benzo(k)fluoranthene	7.9E-08	8.8E-07	No	4E-02			NA/HEAST			2.0E-06	2.2E-05			
Bis(2ethylhexyl)phthalate	1.0E-07	5.1E-07	No	2E-02		Increased liver weight	Diet/HEAST	1000	1	5.1E-06	2.6E-05			
Chrysene	8.9E-08	1.6E-06	No	4E-02			NA/HEAST			2.2E-06	3.9E-05			
Dibenzo(a,h)anthracene	1.1E-07	5.1E-07	No	4E-02			NA/HEAST			2.7E-06	1.3E-05			
Fluoranthene	9.9E-08	4.4E-06	No	4E-01		Neuropathy,liver,blood	Gavage/HEAST	300	1	2.5E-07	1.1E-05			
Fluorene	1.2E-07	2.4E-06	No	4E-01		Neuropathy,liver,blood	Gavage/HEAST	300	1	3.0E-07	6.1E-06			
Indeno(123cd)pyrene	1.0E-07	7.8E-07	No	4E-02			NA/HEAST			2.5E-06	2.0E-05			
Naphthalene	1.1E-07	4.2E-06	No	4E-02		Dec. body weight gain	Gavage/HEAST	1000	1	2.9E-06	1.0E-04			
Phenanthrene	1.6E-07	6.8E-06	No	4E-02			NA/HEAST			4.1E-06	1.7E-04			
Pyrene	1.1E-07	3.7E-06	No	3E-01		Kidney effects	Gavage/HEAST	300	1	3.6E-07	1.2E-05			
PESTICIDES														
4,4'-DDD	9.8E-09	1.4E-09	No	NA			NA/HEAST			NA	NA			
4,4'-DDE	9.1E-09	1.1E-09	No	NA			NA/HEAST			NA	NA			
4,4'-DDT	8.8E-09	4.2E-09	No	5E-04		Liver lesions	Diet/HEAST	100	1	1.8E-05	8.3E-06			
PCB'S														
Aroclor-1260	9.9E-08	6.6E-06	No	NA			NA/HEAST			NA	NA			

TABLE 8.2-8
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIF. FACTR.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												2.6E+01 MAXIMUM 3.4E-01 MEAN
INORGANICS												
Antimony	8.9E-05	8.5E-03	No	4E-04		Longevity, blood chemistry	Water/HEAST	1000	1	2.2E-01	2.1E+01	
Arsenic	2.5E-05	1.7E-04	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1	1	2.5E-02	1.7E-01	
Barium	2.3E-04	6.4E-03	No	5E-02		Increased blood pressure	Water/HEAST	100	1	4.6E-03	1.3E-01	
Beryllium	1.5E-06	6.6E-06	No	5E-03		No adverse effects	Water/HEAST	100	1	3.1E-04	1.3E-03	
Cadmium	8.6E-06	1.5E-04	No	NA			NA/HEAST			NA	NA	
Chromium	1.3E-04	1.3E-03	No	2E-02		Not defined	Water/HEAST	100	1	6.5E-03	6.4E-02	
Cobalt	6.3E-05	3.5E-04	No	NA			NA/HEAST			NA	NA	
Copper	1.1E-03	1.1E-01	No	4E-02		Local GI irritation	HEAST			2.7E-02	2.9E+00	
Lead	5.0E-04	3.3E-02	No	NA			NA/HEAST			NA	NA	
Magnesium	1.0E-02	2.0E-02	No	NA			NA/HEAST			NA	NA	
Mercury	8.2E-07	4.7E-06	No	3E-04		Kidney effects	Oral/HEAST	1000	1	2.7E-03	1.6E-02	
Nickel	1.9E-04	2.0E-03	No	NA			NA/HEAST			NA	NA	
Thallium	4.4E-06	4.3E-05	No	7E-04		Alopecia;inc. SGOT and serum LDH levels	HEAST	300	1	6.3E-03	6.1E-02	
Vanadium	2.3E-04	3.0E-03	No	7E-03		No adverse effects	Water/HEAST	100	1	3.2E-02	4.3E-01	
Zinc	2.6E-03	1.1E-01	No	2E-01		Anemia	Therapeutic/HEAST	10	1	1.3E-02	5.6E-01	
VOLATILES												
1,1-Dichloroethene	1.6E-08	1.9E-07	No	9E-03		Liver lesions	Water/HEAST	1000	1	1.7E-06	2.1E-05	
1,1,1-Trichloroethane	1.6E-08	9.4E-07	No	9E-01		Hepatotoxicity	HEAST	100	1	1.7E-08	1.0E-06	
1,1,2-Trichloroethane	1.6E-08	1.9E-07	No	4E-02		Clinical chemistry alterations	Water/HEAST	100	1	3.9E-07	4.7E-06	
1,1,2,2-Tetrachloroethane	1.7E-08	1.9E-07	No	NA			NA/HEAST			NA	NA	
1,2-Dichloroethane	1.6E-08	1.9E-07	No	NA			NA/HEAST			NA	NA	
1,2-Dichloropropane	1.6E-08	1.9E-07	No	NA			NA/HEAST			NA	NA	
1,3-Dichloropropene(cis)	1.6E-08	1.9E-07	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	5.2E-06	6.3E-05	
1,3-Dichloropropene(trans)	1.6E-08	1.9E-07	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	5.2E-06	6.3E-05	
2-Hexanone	1.3E-07	8.0E-06	No	NA			NA/HEAST			NA	NA	
2-Butanone	2.9E-08	7.5E-06	No	6E-01		Fetotoxicity	HEAST	100	1	5.8E-08	1.5E-05	
4-Methyl-2-Pentanone	3.1E-08	7.5E-06	No	5E-01		Liver and kidney effects	Gavage/HEAST	100	1	6.1E-08	1.5E-05	
Acetone	1.6E-08	1.5E-06	No	1E+00		Nephrotoxicity;liver and kidney effects	Gavage/HEAST	100	1	1.6E-08	1.5E-06	
Benzene	1.6E-08	1.9E-07	No	NA			NA/HEAST			NA	NA	
Bromodichloromethane	1.6E-08	1.9E-07	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000	1	7.9E-07	9.4E-06	
Bromoform	1.6E-08	3.9E-06	No	2E-01		Liver effects	Gavage/HEAST	100	1	7.9E-08	1.9E-05	
Carbon Tetrachloride	1.7E-08	1.9E-07	No	7E-03		Liver lesions	HEAST	100	1	2.4E-06	2.7E-05	
Chlorobenzene	1.6E-08	7.0E-06	No	2E-01		Liver and kidney effects	Oral/HEAST	100	1	9.1E-08	3.5E-05	
Chloromethane	1.5E-08	1.9E-07	No	NA			NA/HEAST			NA	NA	
Chloroform	2.7E-08	3.7E-07	No	1E-02		Liver lesions	HEAST	1000	1	2.7E-06	3.7E-05	
Dibromochloromethane	1.6E-08	1.9E-07	No	2E-01		Liver lesions	Gavage/HEAST	100	1	7.8E-08	9.4E-07	
Ethylbenzene	1.6E-08	1.1E-05	No	1E+00		Hepatotoxicity, nephrotoxicity	Oral/HEAST	100	1	1.6E-08	1.1E-05	
Methylene Chloride	0.0E+00	2.8E-07	No	6E-02		Liver toxicity	Water/HEAST	100	1	0.0E+00	4.7E-06	
Styrene	1.7E-08	1.9E-07	No	2E+00		RBC and liver effects	Gavage/HEAST	100	1	8.3E-09	9.4E-08	
Tetrachloroethene	1.5E-08	1.9E-07	No	1E-01		Hepatotoxicity	Gavage/HEAST	100	1	1.5E-07	1.9E-06	
Toluene	1.7E-08	3.4E-06	No	2E+00		Liver and kidney weight	HEAST	100	1	8.5E-09	1.7E-06	
Trichloroethene	1.6E-08	1.9E-07	No	NA			NA/HEAST			NA	NA	
Vinyl chloride	2.6E-08	3.7E-07	No	NA			NA/HEAST			NA	NA	
Xylenes	1.6E-08	5.2E-05	No	4E+00		No adverse effects	HEAST	100	1	4.5E-09	1.3E-05	

TABLE B.2 - 8 (cont.)
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIF. FACTR.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											
SEMIVOLATILES											
1,3- Dichlorobenzene	1.9E-06	7.5E-06	No	NA			NA/HEAST			NA	NA
1,4- Dichlorobenzene	2.0E-06	3.7E-06	No	NA			NA/HEAST			NA	NA
2- Methylnaphthalene	2.8E-06	1.1E-04	No	NA			NA/HEAST			NA	NA
2,4- Dinitrophenol	1.0E-05	5.2E-05	No	2E-03		Cataract	Therapeutic/HEAST	1000	1	5.0E-03	2.6E-02
3- Nitroaniline	1.1E-05	6.1E-05	No	NA			NA/HEAST			NA	NA
3,3- Dichlorobenzidine	4.6E-06	2.1E-05	No	NA			NA/HEAST			NA	NA
Acenaphthene	1.9E-06	2.6E-05	No	6E-01		Hepatotoxicity	Gavage/HEAST	300	1	3.2E-06	4.3E-05
Acenaphthylene	1.9E-06	1.0E-05	No	4E-02			NA/HEAST			4.6E-05	2.6E-04
Anthracene	1.9E-06	1.9E-05	No	3E+00		No adverse effects	Gavage/HEAST	300	1	6.5E-07	6.3E-06
Benzo(a)anthracene	1.6E-06	3.2E-05	No	4E-02			NA/HEAST			3.9E-05	8.0E-04
Benzo(a)pyrene	1.6E-06	2.6E-05	No	4E-02			NA/HEAST			4.1E-05	6.6E-04
Benzo(b)fluoranthene	1.6E-06	2.3E-05	No	4E-02			NA/HEAST			4.1E-05	5.6E-04
Benzo(ghi)perylene	1.9E-06	1.7E-05	No	4E-02			NA/HEAST			4.7E-05	4.3E-04
Benzo(k)fluoranthene	1.5E-06	1.7E-05	No	4E-02			NA/HEAST			3.8E-05	4.2E-04
Bis(2ethylhexyl)phthalate	1.9E-06	9.9E-06	No	2E-02		Increased liver weight	Diet/HEAST	1000	1	9.7E-05	4.9E-04
Chrysene	1.7E-06	3.0E-05	No	4E-02			NA/HEAST			4.3E-05	7.5E-04
Dibenzo(a,h)anthracene	2.0E-06	9.9E-06	No	4E-02			NA/HEAST			5.1E-05	2.5E-04
Fluoranthene	1.9E-06	8.5E-05	No	4E-01		Neuropathy, liver and blood changes	Gavage/HEAST	300	1	4.8E-06	2.1E-04
Fluorene	2.3E-06	4.7E-05	No	4E-01		Hematological changes	Gavage/HEAST	300	1	5.7E-06	1.2E-04
Indeno(123cd)pyrene	1.9E-06	1.5E-05	No	4E-02			NA/HEAST			4.8E-05	3.8E-04
Naphthalene	2.2E-06	8.0E-05	No	4E-02		Decreased body weight gain	Gavage/HEAST	1000	1	5.5E-05	2.0E-03
Phenanthrene	3.1E-06	1.3E-04	No	4E-02			NA/HEAST			7.8E-05	3.3E-03
Pyrene	2.0E-06	7.0E-05	No	3E-01		Renal effects	Gavage/HEAST	300	1	6.8E-06	2.3E-04
PESTICIDES											
4,4'- DDD	5.7E-08	7.9E-09	No	NA			NA/HEAST			NA	NA
4,4'- DDE	5.3E-08	6.6E-09	No	NA			NA/HEAST			NA	NA
4,4'- DDT	5.1E-08	2.4E-08	No	5E-04		Liver lesions	Diet/HEAST	100	1	1.0E-04	4.8E-05
PESTICIDES											
Aroclor-1260	5.7E-07	3.8E-05	No	NA			NA/HEAST			NA	NA

TABLE B.2-9
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAXE (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIF. FACTR.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST												1.2E-03 2.5E-05	MAXIMUM MEAN
INORGANICS													
Antimony	3.5E-09	3.4E-07	No	4E-04						8.8E-06	8.4E-04		
Arsenic	9.8E-10	6.7E-09	No	1E-03						9.8E-07	6.7E-06		
Barium	8.9E-09	2.5E-07	No	1E-03		Fetotoxicity	HEAST	100	1	8.9E-06	2.5E-04		
Beryllium	6.1E-11	2.6E-10	No	5E-03						1.2E-08	5.2E-08		
Cadmium	3.4E-10	6.1E-09	No	1E-03						3.4E-07	6.1E-06		
Chromium	5.1E-09	5.1E-08	No	7E-02		Nasal mucosa atrophy	HEAST	30	1	7.3E-08	7.3E-07		
Cobalt	2.5E-09	1.4E-08	No	NA			NA/HEAST			NA	NA		
Copper	4.2E-08	4.5E-06	No	NA			NA/HEAST			NA	NA		
Lead	2.0E-08	1.3E-06	No	NA			NA/HEAST			NA	NA		
Magnesium	4.1E-07	7.7E-07	No	NA			NA/HEAST			NA	NA		
Mercury	3.2E-11	1.9E-10	No	9E-06		Neurotoxicity	Occupational/HEAS	30	1	3.6E-06	2.1E-05		
Nickel	7.3E-09	7.9E-08	No	NA			NA/HEAST			NA	NA		
Thallium	1.7E-10	1.7E-09	No	NA			NA/HEAST			NA	NA		
Vanadium	8.9E-09	1.2E-07	No	7E-03						1.3E-06	1.7E-05		
Zinc	1.0E-07	4.4E-06	No	2E-01						5.0E-07	2.2E-05		
VOLATILES													
1,1-Dichloroethene	6.2E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
1,1,1-Trichloroethane	6.2E-13	3.7E-11	No	3E+00		Hepatotoxicity	HEAST	100	1	2.1E-13	1.2E-11		
1,1,2-Trichloroethane	6.2E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
1,1,2,2-Tetrachloroethane	6.6E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
1,2-Dichloroethane	6.2E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
1,2-Dichloropropane	6.2E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
1,3-Dichloropropene(cis)	6.2E-13	7.4E-12	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	1.0E-10	1.2E-09		
1,3-Dichloropropene(trans)	6.2E-13	7.4E-12	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	1.0E-10	1.2E-09		
2-Hexanone	5.1E-12	3.2E-10	No	NA			NA/HEAST			NA	NA		
2-Butanone	1.1E-12	3.0E-10	No	9E-01		CNS	HEAST	100	1	1.3E-12	3.3E-10		
4-Methyl-2-Pentanone	1.2E-12	3.0E-10	No	2E-01		Liver and kidney effects	HEAST	100	1	6.0E-12	1.5E-09		
Acetone	1.7E-12	1.1E-09	No	NA			NA/HEAST			NA	NA		
Benzene	7.2E-13	5.9E-11	No	NA			NA/HEAST			NA	NA		
Bromodichloromethane	6.2E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
Bromoform	6.3E-13	1.5E-10	No	NA			NA/HEAST			NA	NA		
Carbon Tetrachloride	6.7E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
Chlorobenzene	7.2E-13	2.8E-10	No	5E-02		Liver and kidney effects	HEAST	1000	1	1.4E-11	5.6E-09		
Chloromethane	5.9E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
Chloroform	1.1E-12	1.5E-11	No	NA			NA/HEAST			NA	NA		
Dibromochloromethane	6.2E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
Ethylbenzene	6.9E-13	4.3E-10	No	3E-01		Developmental toxicity	HEAST	300	1	2.3E-12	1.4E-09		
Methylene Chloride	0.0E+00	1.1E-11	No	9E-01			HEAST	100	1	0.0E+00	1.2E-11		
Styrene	6.6E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
Tetrachloroethene	6.0E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
Toluene	6.7E-13	1.3E-10	No	6E-01		CNS effects, eyes and nose irritation	HEAST	100	1	1.1E-12	2.2E-10		
Trichloroethene	6.2E-13	7.4E-12	No	NA			NA/HEAST			NA	NA		
Vinyl chloride	1.0E-12	1.5E-11	No	NA			NA/HEAST			NA	NA		
Xylenes	7.2E-13	2.0E-09	No	9E-02		CNS effects, eyes and nose irritation	HEAST	100	1	8.0E-12	2.3E-08		

TABLE B.2-9 (cont.)
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAXE (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIF. FACTR.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST											
SEMIVOLATILES											
1,3-Dichlorobenzene	7.5E-11	3.0E-10	No	NA			NA/HEAST			NA	NA
1,4-Dichlorobenzene	7.8E-11	1.5E-09	No	2E-01		Liver and kidney effects	HEAST	100	1	3.9E-10	7.3E-09
2-Methylnaphthalene	1.1E-10	4.4E-09	No	4E-02			NA/HEAST			2.8E-09	1.1E-07
2,4-Dinitrophenol	4.0E-10	2.0E-09	No	NA			NA/HEAST			NA	NA
3-Nitroaniline	4.2E-10	2.4E-09	No	NA			NA/HEAST			NA	NA
3,3-Dichlorobenzidine	1.8E-10	8.2E-10	No	NA			NA/HEAST			NA	NA
Acenaphthene	7.6E-11	1.0E-09	No	6E-01			HEAST			1.3E-10	1.7E-09
Acenaphthylene	7.3E-11	4.1E-10	No	4E-02			NA/HEAST			1.8E-09	1.0E-08
Anthracene	7.6E-11	7.4E-10	No	3E+00			HEAST			2.5E-11	2.5E-10
Benzo(a)anthracene	6.1E-11	1.3E-09	No	4E-02			NA/HEAST			1.5E-09	3.2E-08
Benzo(a)pyrene	6.4E-11	1.0E-09	No	4E-02			NA/HEAST			1.6E-09	2.6E-08
Benzo(b)fluoranthene	6.5E-11	8.9E-10	No	4E-02			NA/HEAST			1.6E-09	2.2E-08
Benzo(ghi)perylene	7.4E-11	6.9E-10	No	4E-02			NA/HEAST			1.9E-09	1.7E-08
Benzo(k)fluoranthene	6.0E-11	6.7E-10	No	4E-02			NA/HEAST			1.5E-09	1.7E-08
Bis(2ethylhexyl)phthalate	7.7E-11	3.9E-10	No	2E-02			HEAST			3.8E-09	1.9E-08
Chrysene	6.8E-11	1.2E-09	No	4E-02			NA/HEAST			1.7E-09	3.0E-08
Dibenzo(a,h)anthracene	8.1E-11	3.9E-10	No	4E-02			NA/HEAST			2.0E-09	9.7E-09
Fluoranthene	7.5E-11	3.3E-09	No	4E-01			HEAST			1.9E-10	8.3E-09
Fluorene	9.0E-11	1.9E-09	No	4E-01			HEAST			2.3E-10	4.6E-09
Indeno(123cd)pyrene	7.6E-11	5.9E-10	No	4E-02			NA/HEAST			1.9E-09	1.5E-08
Naphthalene	6.7E-11	3.2E-09	No	4E-02			HEAST			2.2E-09	7.9E-08
Phenanthrene	1.2E-10	5.2E-09	No	4E-02			NA/HEAST			3.1E-09	1.3E-07
Pyrene	8.1E-11	2.8E-09	No	3E-01			HEAST			2.7E-10	9.3E-09
PESTICIDES											
4,4'-DDD	7.4E-12	1.0E-12	No	NA			NA/HEAST			NA	NA
4,4'-DDE	6.9E-12	8.7E-13	No	NA			NA/HEAST			NA	NA
4,4'-DDT	6.7E-12	3.2E-12	No	5E-04			HEAST			1.3E-08	6.3E-09
PCB's											
Aroclor-1260	7.5E-11	5.0E-09	No	NA			NA/HEAST			NA	NA

TABLE 8.3-1
SCENARIO 3
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABSORBED DOSE NONCANCER-MEAN (mg/kg/day)	ABSORBED DOSE CANCER-MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER-MAX (mg/kg/day)	ABSORBED DOSE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.84	50.40	1.0E-06	500	0.00	250	25	70	9125	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.70	23.40	1.0E-06	500	0.00	250	25	70	9125	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.47	269.00	1.0E-06	500	0.00	250	25	70	9125	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.21	0.52	1.0E-06	500	0.00	250	25	70	9125	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.57	3.00	1.0E-06	500	0.00	250	25	70	9125	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	12.63	35.20	1.0E-06	500	0.00	250	25	70	9125	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.11	16.70	1.0E-06	500	0.00	250	25	70	9125	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	27.64	206.00	1.0E-06	500	0.00	250	25	70	9125	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	48.26	400.50	1.0E-06	500	0.00	250	25	70	9125	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1983.05	4530.00	1.0E-06	500	0.00	250	25	70	9125	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.14	1.10	1.0E-06	500	0.00	250	25	70	9125	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	14.72	32.20	1.0E-06	500	0.00	250	25	70	9125	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.96	7.00	1.0E-06	500	0.00	250	25	70	9125	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	23.25	53.80	1.0E-06	500	0.00	250	25	70	9125	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.15	547.00	1.0E-06	500	0.00	250	25	70	9125	25550
VOLATILES														
1,1-Dichloroethene	1.6E-10	5.9E-11	3.4E-10	1.2E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
1,1,1-Trichloroethane	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
1,1,2-Trichloroethane	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
1,1,2,2-Tetrachloroethane	2.0E-10	7.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
1,2-Dichloroethane	1.6E-10	5.9E-11	3.4E-10	1.2E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
1,2-Dichloropropane	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
1,3-Dichloropropene(cis)	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
1,3-Dichloropropene(trans)	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
2-Hexanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
2-Butanone	4.0E-10	1.4E-10	7.8E-10	2.8E-10	0.01	0.02	1.0E-06	500	0.01	250	25	70	9125	25550
4-Methyl-2-Pentanone	4.0E-10	1.4E-10	7.8E-10	2.8E-10	0.01	0.02	1.0E-06	500	0.01	250	25	70	9125	25550
Acetone	4.3E-10	1.5E-10	9.3E-09	3.3E-09	0.01	0.19	1.0E-06	500	0.01	250	25	70	9125	25550
Benzene	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Bromodichloromethane	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Bromoform	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Carbon Tetrachloride	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Chlorobenzene	2.0E-10	7.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Chloromethane	1.7E-10	6.1E-11	3.4E-10	1.2E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Chloroform	3.3E-10	1.2E-10	6.8E-10	2.4E-10	0.01	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Dibromochloromethane	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Ethylbenzene	2.0E-10	7.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
Styrene	2.0E-10	7.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Tetrachloroethene	1.8E-10	6.3E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Toluene	1.9E-10	6.9E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Trichloroethene	1.7E-10	6.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Vinyl chloride	3.3E-10	1.2E-10	6.8E-10	2.4E-10	0.01	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
Xylenes	2.0E-10	7.1E-11	3.9E-10	1.4E-10	0.00	0.01	1.0E-06	500	0.01	250	25	70	9125	25550

TABLE B.3-1 (cont.)
SCENARIO 3
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABSORBED DOSE NONCANCER-MEAN (mg/kg/day)	ABSORBED DOSE CANCER-MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER-MAX (mg/kg/day)	ABSORBED DOSE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
2-Methylnaphthalene	1.4E-08	5.1E-09	5.9E-08	2.1E-08	0.29	1.20	1.0E-06	500	0.01	250	25	70	9125	25550
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
Acenaphthene	1.4E-08	4.9E-09	1.6E-08	6.5E-09	0.28	0.37	1.0E-06	500	0.01	250	25	70	9125	25550
Acenaphthylene	1.2E-08	4.3E-09	7.3E-08	2.6E-08	0.25	1.50	1.0E-06	500	0.01	250	25	70	9125	25550
Anthracene	1.3E-08	4.7E-09	1.2E-07	4.2E-08	0.27	2.40	1.0E-06	500	0.01	250	25	70	9125	25550
Benzo(a)anthracene	2.1E-08	7.6E-09	4.8E-07	1.7E-07	0.44	9.80	1.0E-06	500	0.01	250	25	70	9125	25550
Benzo(a)pyrene	2.2E-08	7.9E-09	3.7E-07	1.3E-07	0.45	7.50	1.0E-06	500	0.01	250	25	70	9125	25550
Benzo(b)fluoranthene	2.3E-08	8.3E-09	3.1E-07	1.1E-07	0.48	6.40	1.0E-06	500	0.01	250	25	70	9125	25550
Benzo(ghi)perylene	1.9E-08	6.7E-09	1.7E-07	5.9E-08	0.38	3.40	1.0E-06	500	0.01	250	25	70	9125	25550
Benzo(k)fluoranthene	2.2E-08	7.9E-09	3.3E-07	1.2E-07	0.45	6.80	1.0E-06	500	0.01	250	25	70	9125	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	250	25	70	9125	25550
Chrysene	2.5E-08	8.8E-09	5.4E-07	1.9E-07	0.50	11.00	1.0E-06	500	0.01	250	25	70	9125	25550
Dibenzo(a,h)anthracene	1.4E-08	4.8E-09	7.8E-08	2.8E-08	0.28	1.60	1.0E-06	500	0.01	250	25	70	9125	25550
Fluoranthene	3.2E-08	1.1E-08	7.3E-07	2.6E-07	0.65	15.00	1.0E-06	500	0.01	250	25	70	9125	25550
Fluorene	1.4E-08	5.0E-09	1.2E-07	4.4E-08	0.29	2.50	1.0E-06	500	0.01	250	25	70	9125	25550
Indeno(123cd)pyrene	1.9E-08	6.7E-09	1.6E-07	5.8E-08	0.38	3.30	1.0E-06	500	0.01	250	25	70	9125	25550
Naphthalene	1.2E-08	4.4E-09	2.2E-08	7.9E-09	0.25	0.45	1.0E-06	500	0.01	250	25	70	9125	25550
Phenanthrene	2.1E-08	7.4E-09	6.8E-07	2.4E-07	0.42	14.00	1.0E-06	500	0.01	250	25	70	9125	25550
Pyrene	2.9E-08	1.1E-08	7.3E-07	2.6E-07	0.60	15.00	1.0E-06	500	0.01	250	25	70	9125	25550
PESTICIDES														
4,4'-DDD	1.4E-09	4.9E-10	2.4E-10	8.7E-11	0.03	0.01	1.0E-06	500	0.01	250	25	70	9125	25550
4,4'-DDE	1.5E-09	5.5E-10	6.4E-09	2.3E-09	0.03	0.13	1.0E-06	500	0.01	250	25	70	9125	25550
4,4'-DDT	3.2E-09	1.1E-09	2.2E-08	7.9E-09	0.06	0.45	1.0E-06	500	0.01	250	25	70	9125	25550
PCB's														
Aroclor-1260	1.3E-08	4.8E-09	1.3E-08	4.7E-09	0.27	0.27	1.0E-06	500	0.01	250	25	70	9125	25550

TABLE B.3-2
SCENARIO 3
INGESTION OF CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Antimony	2.3E-06	8.1E-07	2.5E-05	8.8E-06	4.64	50.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Arsenic	2.9E-06	1.0E-06	1.1E-05	4.1E-06	5.70	23.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Barium	9.0E-06	3.2E-06	1.3E-04	4.7E-05	18.47	269.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Beryllium	1.0E-07	3.7E-08	2.5E-07	9.1E-08	0.21	0.52	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cadmium	2.8E-07	9.9E-08	1.5E-06	5.2E-07	0.57	3.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chromium	6.2E-06	2.2E-06	1.7E-05	6.2E-06	12.63	35.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cobalt	4.0E-06	1.4E-06	8.2E-06	2.9E-06	8.11	16.70	50	1.0E-06	250	25	1.00	70.0	9125	25550
Copper	1.4E-05	4.8E-06	1.0E-04	3.6E-05	27.64	206.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Lead	7.1E-06	2.5E-06	5.9E-05	2.1E-05	48.26	400.50	50	1.0E-06	250	25	0.30	70.0	9125	25550
Magnesium	9.7E-04	3.5E-04	2.2E-03	7.9E-04	1983.05	4530.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Mercury	7.1E-08	2.5E-08	5.4E-07	1.9E-07	0.14	1.10	50	1.0E-06	250	25	1.00	70.0	9125	25550
Nickel	7.2E-06	2.6E-06	1.6E-05	5.6E-06	14.72	32.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
Thallium	4.7E-07	1.7E-07	3.4E-06	1.2E-06	0.96	7.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Vanadium	1.1E-05	4.1E-06	2.6E-05	9.4E-06	23.25	53.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Zinc	4.2E-05	1.5E-05	2.7E-04	9.6E-05	85.15	547.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
VOLATILES														
1,1-Dichloroethene	1.6E-09	5.9E-10	3.4E-09	1.2E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,1-Trichloroethane	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2-Trichloroethane	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2,2-Tetrachloroethane	2.0E-09	7.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloroethane	1.6E-09	5.9E-10	3.4E-09	1.2E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloropropane	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,3-Dichloropropene(cis)	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,3-Dichloropropene(trans)	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
2-Hexanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
2-Butanone	4.0E-09	1.4E-09	7.8E-09	2.8E-09	0.01	0.02	50	1.0E-06	250	25	1.00	70.0	9125	25550
4-Methyl-2-Pentanone	4.0E-09	1.4E-09	7.8E-09	2.8E-09	0.01	0.02	50	1.0E-06	250	25	1.00	70.0	9125	25550
Acetone	4.3E-09	1.5E-09	9.3E-08	3.3E-08	0.01	0.19	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzene	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromodichloromethane	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromoform	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Carbon Tetrachloride	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chlorobenzene	2.0E-09	7.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chloromethane	1.7E-09	6.1E-10	3.4E-09	1.2E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chloroform	3.3E-09	1.2E-09	6.8E-09	2.4E-09	0.01	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibromochloromethane	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Ethylbenzene	2.0E-09	7.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Styrene	2.0E-09	7.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Tetrachloroethene	1.8E-09	6.3E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Toluene	1.9E-09	6.9E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Trichloroethene	1.7E-09	6.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Vinyl chloride	3.3E-09	1.2E-09	6.8E-09	2.4E-09	0.01	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Xylenes	2.0E-09	7.1E-10	3.9E-09	1.4E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550

TABLE B.3-2 (cont.)
SCENARIO 3
INGESTION OF CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN SOIL-MEAN (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES														
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
2-Methylnaphthalene	1.4E-07	5.1E-08	5.9E-07	2.1E-07	0.29	1.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Acenaphthene	1.4E-07	4.9E-08	1.8E-07	6.5E-08	0.28	0.37	50	1.0E-06	250	25	1.00	70.0	9125	25550
Acenaphthylene	1.2E-07	4.3E-08	7.3E-07	2.6E-07	0.25	1.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Anthracene	1.3E-07	4.7E-08	1.2E-06	4.2E-07	0.27	2.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)anthracene	2.1E-07	7.6E-08	4.8E-06	1.7E-06	0.44	9.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)pyrene	2.2E-07	7.9E-08	3.7E-06	1.3E-06	0.45	7.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(b)fluoranthene	2.3E-07	8.3E-08	3.1E-06	1.1E-06	0.48	6.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(ghi)perylene	1.9E-07	6.7E-08	1.7E-06	5.9E-07	0.38	3.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(k)fluoranthene	2.2E-07	7.9E-08	3.3E-06	1.2E-06	0.45	6.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chrysene	2.5E-07	8.8E-08	5.4E-06	1.9E-06	0.50	11.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibenzo(a,h)anthracene	1.4E-07	4.8E-08	7.8E-07	2.8E-07	0.28	1.60	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluoranthene	3.2E-07	1.1E-07	7.3E-06	2.6E-06	0.65	15.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluorene	1.4E-07	5.0E-08	1.2E-06	4.4E-07	0.29	2.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Indeno(123cd)pyrene	1.9E-07	6.7E-08	1.6E-06	5.8E-07	0.38	3.30	50	1.0E-06	250	25	1.00	70.0	9125	25550
Naphthalene	1.2E-07	4.4E-08	2.2E-07	7.9E-08	0.25	0.45	50	1.0E-06	250	25	1.00	70.0	9125	25550
Phenanthrene	2.1E-07	7.4E-08	6.6E-06	2.4E-06	0.42	14.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Pyrene	2.9E-07	1.1E-07	7.3E-06	2.6E-06	0.60	15.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
PESTICIDES														
4,4'-DDD	4.1E-09	1.5E-09	7.3E-10	2.6E-10	0.03	0.01	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDE	4.6E-09	1.7E-09	1.9E-08	6.8E-09	0.03	0.13	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDT	9.5E-09	3.4E-09	6.6E-08	2.4E-08	0.06	0.45	50	1.0E-06	250	25	0.30	70.0	9125	25550
PCB's														
Aroclor-1260	4.0E-08	1.4E-08	4.0E-08	1.4E-08	0.27	0.27	50	1.0E-06	250	25	0.30	70.0	9125	25550

TABLE B.3-3
SCENARIO 3
INGESTION OF CHEMICALS IN DRINKING WATER
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN WATER--MEAN (mg/liter)	CONC. IN WATER--MAX (mg/liter)	IR (liter/day)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS												
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Arsenic	8.41E-05	3.01E-05	1.30E-04	4.65E-05	0.01	0.01	1.0	250	25	70	9125	25550
Barium	2.71E-03	9.67E-04	7.43E-03	2.65E-03	0.28	0.76	1.0	250	25	70	9125	25550
Beryllium	1.45E-05	5.17E-06	1.66E-05	5.94E-06	0.00	0.00	1.0	250	25	70	9125	25550
Cadmium	5.14E-05	1.84E-05	1.44E-04	5.14E-05	0.01	0.01	1.0	250	25	70	9125	25550
Chromium	2.12E-04	7.55E-05	6.14E-04	2.19E-04	0.02	0.06	1.0	250	25	70	9125	25550
Cobalt	3.68E-04	1.31E-04	5.38E-04	1.92E-04	0.04	0.06	1.0	250	25	70	9125	25550
Copper	1.40E-03	4.99E-04	9.37E-03	3.35E-03	0.14	0.96	1.0	250	25	70	9125	25550
Lead	1.08E-03	3.87E-04	9.39E-03	3.35E-03	0.11	0.96	1.0	250	25	70	9125	25550
Magnesium	1.59E-01	5.68E-02	1.77E-01	6.33E-02	16.27	18.10	1.0	250	25	70	9125	25550
Mercury	3.45E-06	1.23E-06	1.76E-05	6.29E-06	0.00	0.00	1.0	250	25	70	9125	25550
Nickel	7.38E-04	2.64E-04	1.34E-03	4.79E-04	0.08	0.14	1.0	250	25	70	9125	25550
Thallium	3.91E-05	1.40E-05	3.91E-05	1.40E-05	0.00	0.00	1.0	250	25	70	9125	25550
Vanadium	5.94E-04	2.12E-04	1.99E-03	7.09E-04	0.06	0.20	1.0	250	25	70	9125	25550
Zinc	7.64E-03	2.73E-03	4.08E-02	1.46E-02	0.78	4.17	1.0	250	25	70	9125	25550
VOLATILES												
1,1-Dichloroethene	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
1,1,1-Trichloroethane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
1,1,2-Trichloroethane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
1,1,2,2-Tetrachloroethane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
1,2-Dichloroethane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
1,2-Dichloropropane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
1,3-Dichloropropene(cis)	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
1,3-Dichloropropene(trans)	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
2-Hexanone	1.18E-04	4.20E-05	9.78E-05	3.49E-05	0.01	0.01	1.0	250	25	70	9125	25550
2-Butanone	1.18E-04	4.20E-05	9.78E-05	3.49E-05	0.01	0.01	1.0	250	25	70	9125	25550
4-Methyl-2-Pentanone	1.35E-04	4.82E-05	9.78E-05	3.49E-05	0.01	0.01	1.0	250	25	70	9125	25550
Acetone	1.20E-04	4.29E-05	9.78E-05	3.49E-05	0.01	0.01	1.0	250	25	70	9125	25550
Benzene	8.80E-05	3.14E-05	4.79E-04	1.71E-04	0.01	0.05	1.0	250	25	70	9125	25550
Bromodichloromethane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Bromoform	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Carbon Tetrachloride	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Chlorobenzene	8.50E-05	3.03E-05	7.73E-04	2.76E-04	0.01	0.08	1.0	250	25	70	9125	25550
Chloromethane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Chloroform	1.35E-04	4.82E-05	9.78E-05	3.49E-05	0.01	0.01	1.0	250	25	70	9125	25550
Dibromochloromethane	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Ethylbenzene	7.56E-05	2.70E-05	4.31E-04	1.54E-04	0.01	0.04	1.0	250	25	70	9125	25550
Methylene Chloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Styrene	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Tetrachloroethene	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Toluene	5.07E-05	1.81E-05	5.87E-05	2.10E-05	0.01	0.01	1.0	250	25	70	9125	25550
Trichloroethene	6.75E-05	2.41E-05	4.89E-05	1.75E-05	0.01	0.01	1.0	250	25	70	9125	25550
Vinyl chloride	1.35E-04	4.82E-05	9.78E-05	3.49E-05	0.01	0.01	1.0	250	25	70	9125	25550
Xylenes	9.08E-05	3.24E-05	1.08E-03	3.84E-04	0.01	0.11	1.0	250	25	70	9125	25550

TABLE B.3-3 (cont.)
SCENARIO 3
INGESTION OF CHEMICALS IN DRINKING WATER
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE NONCANCER-MEAN (mg/kg/day)	INTAKE CANCER-MEAN (mg/kg/day)	INTAKE NONCANCER-MAX (mg/kg/day)	INTAKE CANCER-MAX (mg/kg/day)	CONC. IN WATER-MEAN (mg/liter)	CONC. IN WATER-MAX (mg/liter)	IR (liter/day)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES												
1,3-Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
1,4-Dichlorobenzene	1.47E-04	5.26E-05	1.37E-04	4.89E-05	0.02	0.01	1.0	250	25	70	9125	25550
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
2,4-Dinitrophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
3-Nitroaniline	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Acenaphthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Acenaphthylene	1.53E-04	5.46E-05	1.66E-04	5.94E-05	0.02	0.02	1.0	250	25	70	9125	25550
Anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Benzo(ghi)perylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Chrysene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Fluorene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
Pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
PESTICIDES												
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550
PCB's												
Aroclor-1260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	1.0	250	25	70	9125	25550

TABLE B.3-4
SCENARIO 3
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK - MEAN	CHEMICAL SPECIFIC RISK - MAX	TOTAL PATHWAY RISK	TOTAL RISK	
										4.1E-08	2.6E-04	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										3.8E-08	1.7E-04	MEAN
VOLATILES												
1,1-Dichloroethene	5.88E-11	1.22E-10	No	6.00E-01	C	Adrenal pheochromocytomas	Oral/IRIS	3.5E-11	7.3E-11			
1,1,1-Trichloroethane	6.11E-11	1.40E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
1,1,2-Trichloroethane	6.11E-11	1.40E-10	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.5E-12	8.0E-12			
1,1,2,2-Tetrachloroethane	7.12E-11	1.40E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.4E-11	2.8E-11			
1,2-Dichloroethane	5.88E-11	1.22E-10	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	5.3E-12	1.1E-11			
1,2-Dichloropropane	6.11E-11	1.40E-10	No	6.80E-02	B2	Liver	Gavage/HEAST	4.2E-12	9.5E-12			
1,3-Dichloropropene(cis)	6.11E-11	1.40E-10	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	1.1E-11	2.5E-11			
1,3-Dichloropropene(trans)	6.11E-11	1.40E-10	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	1.1E-11	2.5E-11			
2-Hexanone	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
2-Butanone	1.42E-10	2.80E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
4-Methyl-2-Pentanone	1.42E-10	2.80E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Acetone	1.52E-10	3.32E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzene	6.11E-11	1.40E-10	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.8E-12	4.1E-12			
Bromodichloromethane	6.11E-11	1.40E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	7.9E-12	1.8E-11			
Bromoform	6.11E-11	1.40E-10	No	7.90E-03	B2	Intestional lesions	Gavage/IRIS	4.8E-13	1.1E-12			
Carbon Tetrachloride	6.11E-11	1.40E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	7.9E-12	1.8E-11			
Chlorobenzene	7.12E-11	1.40E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloromethane	6.11E-11	1.22E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	7.9E-13	1.6E-12			
Chloroform	1.17E-10	2.45E-10	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	7.1E-13	1.5E-12			
Dibromochloromethane	6.11E-11	1.40E-10	No	6.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	5.1E-12	1.2E-11			
Ethylbenzene	7.12E-11	1.40E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Methylene Chloride	0.00E+00	0.00E+00	No	7.50E-03	B2	Hepatocellular carcinoma	Water/IRIS	0.0E+00	0.0E+00			
Styrene	7.12E-11	1.40E-10	No	3.00E-02	B2	Lung, bronchi	Gavage/HEAST	2.1E-12	4.2E-12			
Tetrachloroethene	6.31E-11	1.40E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	3.2E-12	7.1E-12			
Toluene	6.66E-11	1.40E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Trichloroethene	6.11E-11	1.40E-10	No	1.10E-02	B2	Liver	Gavage/HEAST	6.7E-13	1.5E-12			
Vinyl chloride	1.17E-10	2.45E-10	No	1.90E+00	A	Lung	Diet/HEAST	2.2E-10	4.6E-10			
Xylenes	7.12E-11	1.40E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
SEMIVOLATILES												
1,3-Dichlorobenzene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
1,4-Dichlorobenzene	0.00E+00	0.00E+00	No	2.40E-02	C	Liver	Gavage/HEAST	0.0E+00	0.0E+00			
2-Methylnaphthalene	5.11E-09	2.10E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
2,4-Dinitrophenol	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
3-Nitroaniline	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00			
Acenaphthene	4.86E-09	6.46E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Acenaphthylene	4.35E-09	2.62E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Anthracene	4.74E-09	4.19E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(a)anthracene	7.65E-09	1.71E-07	No	NA	B2	Liver,lung,skin	IRIS	0.0E+00	0.0E+00			
Benzo(a)pyrene	7.91E-09	1.31E-07	No	NA	B2	Lung,stomach	IRIS	0.0E+00	0.0E+00			
Benzo(b)fluoranthene	8.34E-09	1.12E-07	No	NA	B2	Lung,thorax,skin	IRIS	0.0E+00	0.0E+00			
Benzo(ghi)perylene	6.70E-09	5.94E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(k)fluoranthene	7.93E-09	1.19E-07	No	NA	B2	Lung,thorax,skin	IRIS	0.0E+00	0.0E+00			
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00			
Chrysene	8.81E-09	1.92E-07	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00			
Dibenzo(a,h)anthracene	4.85E-09	2.80E-08	No	NA	B2	Lung,mammary	IRIS	0.0E+00	0.0E+00			
Fluoranthene	1.13E-08	2.62E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluorene	4.99E-09	4.37E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Indeno(123cd)pyrene	6.72E-09	5.77E-08	No	NA	B2	Lung,skin	IRIS	0.0E+00	0.0E+00			
Naphthalene	4.44E-09	7.86E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenanthrene	7.39E-09	2.45E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Pyrene	1.05E-08	2.62E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
PESTICIDES												
4,4'-DDD	4.87E-10	8.74E-11	No	2.40E-01	B2	Liver tumor	Oral,IRIS	1.2E-10	2.1E-11			
4,4'-DDE	5.53E-10	2.27E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.9E-10	7.7E-10			
4,4'-DDT	1.13E-09	7.86E-09	No	3.40E-01	B2	Liver tumor	Diet/IRIS	3.9E-10	2.7E-09			
PCB's												
Aroclor-1260	4.79E-09	4.72E-09	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	3.7E-08	3.6E-08			

TABLE B.3-5
SCENARIO 3
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	
										8.1E-05	MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										6.7E-06	MEAN
INORGANICS											
Antimony	8.11E-07	8.81E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	9.96E-07	4.09E-06	No	1.75E+00	A	Skin	Water/IRIS	1.7E-06	7.2E-06		
Barium	3.23E-06	4.70E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Beryllium	3.72E-08	9.09E-08	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	1.6E-07	3.9E-07		
Cadmium	9.88E-08	5.24E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	2.21E-06	6.15E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	1.42E-06	2.92E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	4.83E-06	3.60E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	2.53E-06	2.10E-05	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00		
Magnesium	3.46E-04	7.92E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	2.53E-08	1.92E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	2.57E-06	5.63E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Thallium	1.68E-07	1.22E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Vanadium	4.06E-06	9.40E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	1.49E-05	9.56E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	5.88E-10	1.22E-09	No	6.00E-01	C	Adrenal pheochromocytoma	Oral/IRIS	3.5E-10	7.3E-10		
1,1,1-Trichloroethane	6.11E-10	1.40E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	6.11E-10	1.40E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.5E-11	8.0E-11		
1,1,2,2-Tetrachloroethane	7.12E-10	1.40E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.4E-10	2.8E-10		
1,2-Dichloroethane	5.88E-10	1.22E-09	No	9.10E-02	B2	Hemanglosarcoma	Gavage/IRIS	5.3E-11	1.1E-10		
1,2-Dichloropropane	6.11E-10	1.40E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	4.2E-11	9.5E-11		
1,3-Dichloropropene(cis)	6.11E-10	1.40E-09	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	1.1E-10	2.5E-10		
1,3-Dichloropropene(trans)	6.11E-10	1.40E-09	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	1.1E-10	2.5E-10		
2-Hexanone	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
2-Butanone	1.42E-09	2.80E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
4-Methyl-2-Pentanone	1.42E-09	2.80E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Acetone	1.52E-09	3.32E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzene	6.11E-10	1.40E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.8E-11	4.1E-11		
Bromodichloromethane	6.11E-10	1.40E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	7.9E-11	1.8E-10		
Bromoform	6.11E-10	1.40E-09	No	7.90E-03	B2	Intestinal lesions	Gavage/IRIS	4.8E-12	1.1E-11		
Carbon Tetrachloride	6.11E-10	1.40E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	7.9E-11	1.8E-10		
Chlorobenzene	7.12E-10	1.40E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloromethane	6.11E-10	1.22E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	7.9E-12	1.6E-11		
Chloroform	1.17E-09	2.45E-09	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	7.1E-12	1.5E-11		
Dibromochloromethane	6.11E-10	1.40E-09	No	0.08	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00		
Ethylbenzene	7.12E-10	1.40E-09	No	NA	D		NA/IRIS,HEAST	5.3E-12	1.0E-11		
Methylene Chloride	0.00E+00	0.00E+00	No	7.50E-03	B2	Hepatocellular carcinomas	Water/IRIS	0.0E+00	0.0E+00		
Styrene	7.12E-10	1.40E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	3.8E-11	7.1E-11		
Tetrachloroethene	6.31E-10	1.40E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	0.0E+00	0.0E+00		
Toluene	6.86E-10	1.40E-09	No	NA	D		NA/IRIS,HEAST	7.5E-12	1.5E-11		
Trichloroethene	6.11E-10	1.40E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	1.2E-09	2.7E-09		
Vinyl chloride	1.17E-09	2.45E-09	No	1.90E+00	A	Lung	Diet/HEAST	0.0E+00	0.0E+00		
Xylenes	7.12E-10	1.40E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		

TABLE B.3-5 (cont.)
SCENARIO 3
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK	
										2.5E-04	MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										1.7E-04	MEAN
SEMIVOLATILES											
1,3-Dichlorobenzene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
1,4-Dichlorobenzene	0.00E+00	0.00E+00	No	2.40E-02	C	Liver	Gavage/HEAST	0.0E+00	0.0E+00		
2-Methylnaphthalene	5.11E-08	2.10E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
2,4-Dinitrophenol	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
3-Nitroaniline	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00		
Acenaphthene	4.86E-08	6.46E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Acenaphthylene	4.35E-08	2.62E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Anthracene	4.74E-08	4.19E-07	No	NA	D		NA/IRIS,HEAST	5.5E-07	4.8E-06		
Benzo(a)anthracene	7.65E-08	1.71E-06	No	1.15E+01	B2	Liver,lung,skin	IRIS	8.8E-07	2.0E-05		
Benzo(a)pyrene	7.91E-08	1.31E-06	No	1.15E+01	B2	Lung,stomach	IRIS	9.1E-07	1.5E-05		
Benzo(b)fluoranthene	8.34E-08	1.12E-06	No	1.15E+01	B2	Lung,thorax,skin	IRIS	0.0E+00	0.0E+00		
Benzo(ghi)perylene	6.70E-08	5.94E-07	No	NA	D		NA/IRIS,HEAST	7.7E-07	6.8E-06		
Benzo(k)fluoranthene	7.93E-08	1.19E-06	No	1.15E+01	B2	Lung,thorax,skin	IRIS	1.1E-09	1.7E-08		
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00		
Chrysene	8.81E-08	1.92E-06	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.0E-06	2.2E-05		
Dibenzo(a,h)anthracene	4.85E-08	2.80E-07	No	1.15E+01	B2	Lung,mammary	IRIS	0.0E+00	0.0E+00		
Fluoranthene	1.13E-07	2.62E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Fluorene	4.99E-08	4.37E-07	No	NA	D		NA/IRIS,HEAST	5.7E-07	5.0E-06		
Indeno(123cd)pyrene	6.72E-08	5.77E-07	No	1.15E+01	B2	Lung,skin	IRIS	0.0E+00	0.0E+00		
Naphthalene	4.44E-08	7.86E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Phenanthrene	7.39E-08	2.45E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Pyrene	1.05E-07	2.62E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
PESTICIDES											
4,4'-DDD	1.46E-09	2.62E-10	No	2.40E-01	B2	Liver tumor	Oral/IRIS	5.0E-10	8.9E-11		
4,4'-DDE	1.66E-09	6.81E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	5.6E-10	2.3E-09		
4,4'-DDT	3.40E-09	2.36E-08	No	3.40E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00		
PCB's											
Aroclor-1260	1.44E-08	1.42E-08	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	1.1E-07	1.1E-07		

TABLE B.3-6
SCENARIO 3
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX	TOTAL PATHWAY RISK
										1.8E-04 MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER										1.6E-04 MEAN
INORGANICS										
Antimony	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Arsenic	3.01E-05	4.65E-05	No	1.75E+00	A	Skin	Water/IRIS	5.3E-05	8.1E-05	
Barium	9.67E-04	2.65E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Beryllium	5.17E-06	5.94E-06	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	2.2E-05	2.6E-05	
Cadmium	1.84E-05	5.14E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chromium	7.55E-05	2.19E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Cobalt	1.31E-04	1.92E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Copper	4.99E-04	3.35E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Lead	3.87E-04	3.35E-03	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00	
Magnesium	5.68E-02	6.33E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Mercury	1.23E-06	6.29E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Nickel	2.64E-04	4.79E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Thallium	1.40E-05	1.40E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Vanadium	2.12E-04	7.09E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Zinc	2.73E-03	1.46E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
VOLATILES										
1,1-Dichloroethene	2.41E-05	1.75E-05	No	6.00E-01	C	Adrenal pheochromocytoma	Oral/IRIS	1.4E-05	1.0E-05	
1,1,1-Trichloroethane	2.41E-05	1.75E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
1,1,2-Trichloroethane	2.41E-05	1.75E-05	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.4E-06	1.0E-06	
1,1,2,2-Tetrachloroethane	2.41E-05	1.75E-05	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	4.8E-06	3.5E-06	
1,2-Dichloroethane	2.41E-05	1.75E-05	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	2.2E-06	1.6E-06	
1,2-Dichloropropane	2.41E-05	1.75E-05	No	6.80E-02	B2	Liver	Gavage/HEAST	1.6E-06	1.2E-06	
1,3-Dichloropropene(cis)	2.41E-05	1.75E-05	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	4.3E-06	3.1E-06	
1,3-Dichloropropene(trans)	2.41E-05	1.75E-05	No	1.80E-01	B2	Stomach,liver,adrenal	Gavage/HEAST	4.3E-06	3.1E-06	
2-Hexanone	4.20E-05	3.49E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
2-Butanone	4.20E-05	3.49E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
4-Methyl-2-Pentanone	4.82E-05	3.49E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Acetone	4.20E-05	3.49E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Benzene	3.14E-05	1.71E-04	No	2.90E-02	A	Leukemia	Occupational/IRIS	9.1E-07	5.0E-06	
Bromodichloromethane	2.41E-05	1.75E-05	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	3.1E-06	2.3E-06	
Bromoform	2.41E-05	1.75E-05	No	7.90E-03	B2	Intestinal lesions	Gavage/IRIS	1.9E-07	1.4E-07	
Carbon Tetrachloride	2.41E-05	1.75E-05	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	3.1E-06	2.3E-06	
Chlorobenzene	3.03E-05	2.76E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chloromethane	2.41E-05	1.75E-05	No	1.30E-02	C	Kidney	Inhalation/HEAST	3.1E-07	2.3E-07	
Chloroform	4.82E-05	3.49E-05	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	2.9E-07	2.1E-07	
Dibromochloromethane	2.41E-05	1.75E-05	No	0.08	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00	
Ethylbenzene	2.70E-05	1.54E-04	No	NA	D		NA/IRIS,HEAST	2.0E-07	1.2E-06	
Methylene Chloride	0.00E+00	0.00E+00	No	7.50E-03	B2	Hepatocellular carcinomas	Water/IRIS	0.0E+00	0.0E+00	
Styrene	2.41E-05	1.75E-05	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.2E-06	8.9E-07	
Tetrachloroethene	2.41E-05	1.75E-05	No	5.10E-02	B2	Liver	Gavage/HEAST	0.0E+00	0.0E+00	
Toluene	1.81E-05	2.10E-05	No	NA	D		NA/IRIS,HEAST	2.0E-07	2.3E-07	
Trichloroethene	2.41E-05	1.75E-05	No	1.10E-02	B2	Liver	Gavage/HEAST	4.6E-05	3.3E-05	
Vinyl chloride	4.82E-05	3.49E-05	No	1.90E+00	A	Lung	Diet/HEAST	0.0E+00	0.0E+00	
Xylenes	3.24E-05	3.84E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	

TABLE B.3-6 (cont.)
SCENARIO 3
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL SPECIFIC RISK-MEAN	CHEMICAL SPECIFIC RISK-MAX
SEMIVOLATILES									
1,3-Dichlorobenzene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
1,4-Dichlorobenzene	5.26E-05	4.89E-05	No	2.40E-02	C	Liver	Gavage/HEAST	0.0E+00	0.0E+00
2-Methylnaphthalene	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
2,4-Dinitrophenol	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3-Nitroaniline	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00
Acenaphthene	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00
Acenaphthylene	5.46E-05	5.94E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Anthracene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(a)anthracene	0.00E+00	0.00E+00	No	1.15E+01	B2	Liver,lung,skin	IRIS	0.0E+00	0.0E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	No	1.15E+01	B2	Lung,stomach	IRIS	0.0E+00	0.0E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	No	1.15E+01	B2	Lung,thorax,skin	IRIS	0.0E+00	0.0E+00
Benzo(ghi)perylene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Benzo(k)fluoranthene	0.00E+00	0.00E+00	No	1.15E+01	B2	Lung,thorax,skin	IRIS	0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00
Chrysene	0.00E+00	0.00E+00	No	1.15E+01	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	No	1.15E+01	B2	Lung,mammary	IRIS	0.0E+00	0.0E+00
Fluoranthene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Fluorene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Indeno(123cd)pyrene	0.00E+00	0.00E+00	No	1.15E+01	B2	Lung,skin	IRIS	0.0E+00	0.0E+00
Naphthalene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Phenanthrene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
Pyrene	0.00E+00	0.00E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00
PESTICIDES									
4,4'-DDD	0.00E+00	0.00E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	0.0E+00	0.0E+00
4,4'-DDE	0.00E+00	0.00E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00
4,4'-DDT	0.00E+00	0.00E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00
PCB's									
Aroclor-1260	0.00E+00	0.00E+00	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	0.0E+00	0.0E+00

TABLE B.3-7
SCENARIO3
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) - MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) - MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												9.0E-04	2.5E+00	MAXIMUM
												6.3E-05	1.6E+00	MEAN
VOLATILES														
1,1-Dichloroethene	1.65E-10	3.42E-10	No	9E-03	Medium	Hepatic lesions	Water/IRIS	1000	1	1.8E-08	3.8E-08			
1,1,1-Trichloroethane	1.71E-10	3.91E-10	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	1000	1	1.9E-09	4.3E-09			
1,1,2-Trichloroethane	1.71E-10	3.91E-10	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	4.3E-08	9.8E-08			
1,1,2,2-Tetrachloroethane	1.99E-10	3.91E-10	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethane	1.65E-10	3.42E-10	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloropropane	1.71E-10	3.91E-10	No	NA			NA/IRIS,HEAST			NA	NA			
1,3-Dichloropropene (cis)	1.71E-10	3.91E-10	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	5.7E-07	1.3E-06			
1,3-Dichloropropene (trans)	1.71E-10	3.91E-10	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	5.7E-07	1.3E-06			
2-Hexanone	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA			
2-Butanone	3.97E-10	7.83E-10	No	5E-02	Medium	Fetotoxicity	Inhalation/IRIS	1000	1	7.9E-09	1.6E-08			
4-Methyl-2-Pentanone	3.97E-10	7.83E-10	No	5E-02		Liver and kidney effects	Gavage/HEAST	1000	1	7.9E-09	1.6E-08			
Acetone	4.27E-10	9.30E-09	No	1E-01	Low	Increased liver,kidney weights	Gavage/IRIS	1000	1	4.3E-09	9.3E-08			
Benzene	1.71E-10	3.91E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Bromodichloromethane	1.71E-10	3.91E-10	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	8.6E-09	2.0E-08			
Bromoform	1.71E-10	3.91E-10	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	8.6E-09	2.0E-08			
Carbon Tetrachloride	1.71E-10	3.91E-10	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	2.4E-07	5.6E-07			
Chlorobenzene	1.99E-10	3.91E-10	No	2E-02	Medium	Liver and kidney effects	Oral/IRIS,HEAST	1000	1	1.0E-08	2.0E-08			
Chloromethane	1.71E-10	3.42E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Chloroform	3.28E-10	6.85E-10	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	3.3E-08	6.8E-08			
Dibromochloromethane	1.71E-10	3.91E-10	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	8.6E-09	2.0E-08			
Ethylbenzene	1.99E-10	3.91E-10	No	1E-01	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	2.0E-09	3.9E-09			
Methylene Chloride	0.00E+00	0.00E+00	No	6E-02	Medium	Liver toxicity	Water/IRIS	100	1	0.0E+00	0.0E+00			
Styrene	1.99E-10	3.91E-10	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	1.0E-09	2.0E-09			
Tetrachloroethene	1.77E-10	3.91E-10	No	1E-02	Medium	Hepatotoxicity,weight gain	Gavage/IRIS	100	1	1.8E-08	3.9E-08			
Toluene	1.92E-10	3.91E-10	No	2E-01	Medium	Liver and kidney weights	Gavage/IRIS	1000	1	9.6E-10	2.0E-09			
Trichloroethene	1.71E-10	3.91E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Vinyl chloride	3.28E-10	6.85E-10	No	NA			NA/IRIS,HEAST			NA	NA			
Xylenes	1.99E-10	3.91E-10	No	2E+00	Medium	Hyperactivity, inc. mortality	Gavage/IRIS	100	1	1.0E-10	2.0E-10			
SEMIVOLATILES														
1,3-Dichlorobenzene	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA			
1,4-Dichlorobenzene	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA			
2-Methylnaphthalene	1.43E-08	5.87E-08	No	NA			NA/IRIS,HEAST			NA	NA			
2,4-Dinitrophenol	0.00E+00	0.00E+00	No	2E-03	Low	Cataract formation	Human/IRIS	1000	1	0.0E+00	0.0E+00			
3-Nitroaniline	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA			
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA			
Acenaphthene	1.36E-08	1.81E-08	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	2.3E-07	3.0E-07			
Acenaphthylene	1.22E-08	7.34E-08	No	4E-03			NA/IRIS,HEAST			3.0E-06	1.8E-05			
Anthracene	1.33E-08	1.17E-07	No	3E-01	Low	No adverse effects	Gavage/IRIS,HEAST	3000	1	4.4E-08	3.9E-07			
Benzo(a)anthracene	2.14E-08	4.79E-07	No	4E-03			NA/IRIS,HEAST			5.4E-06	1.2E-04			
Benzo(a)pyrene	2.21E-08	3.67E-07	No	4E-03			NA/IRIS,HEAST			5.5E-06	9.2E-05			
Benzo(b)fluoranthene	2.33E-08	3.13E-07	No	4E-03			NA/IRIS,HEAST			5.8E-06	7.8E-05			
Benzo(ghi)perylene	1.88E-08	1.66E-07	No	4E-03			NA/IRIS,HEAST			4.7E-06	4.2E-05			
Benzo(k)fluoranthene	2.22E-08	3.33E-07	No	4E-03			NA/IRIS,HEAST			5.6E-06	8.3E-05			
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	No	2E-02	Medium	Increased liver weight	Diet/IRIS,HEAST	1000	1	0.0E+00	0.0E+00			
Chrysene	2.47E-08	5.38E-07	No	4E-03			NA/IRIS,HEAST			6.2E-06	1.3E-04			
Dibenzo(a,h)anthracene	1.36E-08	7.83E-08	No	4E-03			NA/IRIS,HEAST			3.4E-06	2.0E-05			
Fluoranthene	3.16E-08	7.34E-07	No	4E-02	Low	Neuropathy,liver,blood	Gavage/IRIS	3000	1	7.9E-07	1.8E-05			
Fluorene	1.40E-08	1.22E-07	No	4E-02	Low	Neuorpathy,liver,blood	Gavage/IRIS	3000	1	3.5E-07	3.1E-06			
Indeno(123cd)pyrene	1.88E-08	1.61E-07	No	4E-03			NA/IRIS,HEAST			4.7E-06	4.0E-05			
Naphthalene	1.24E-08	2.20E-08	No	4E-03		Dec. body weight gain	Gavage/HEAST	10,000	1	3.1E-06	5.5E-06			
Phenanthrene	2.07E-08	6.85E-07	No	4E-03			NA/IRIS,HEAST			5.2E-06	1.7E-04			
Pyrene	2.94E-08	7.34E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	9.8E-07	2.4E-05			
PESTICIDES														
4,4'-DDD	1.36E-09	2.45E-10	No	NA			NA/IRIS,HEAST			NA	NA			
4,4'-DDE	1.55E-09	6.36E-09	No	NA			NA/IRIS,HEAST			NA	NA			
4,4'-DDT	3.17E-09	2.20E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	6.3E-06	4.4E-05			
PCB's														
Aroclor-1260	1.34E-08	1.32E-08	No	NA			NA/IRIS,HEAST			NA	NA			

TABLE B.3-8
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												1.5E-01 MAXIMUM 2.0E-02 MEAN
INORGANICS												
Antimony	2.27E-06	2.47E-05	No	4E-04	Low	Longevity;blood glucose,chol.	Water/IRIS,HEAST	1000	1	5.7E-03	6.2E-02	
Arsenic	2.79E-06	1.14E-05	No	1E-03		Keratosis,hyperpigmentation	Diet/HEAST	1	1	2.8E-03	1.1E-02	
Barium	9.04E-06	1.32E-04	No	7E-02	Medium	No adverse effects	Water/IRIS	3	1	1.3E-04	1.9E-03	
Beryllium	1.04E-07	2.54E-07	No	5E-03	Low	No adverse effects	Water/IRIS,HEAST	100	1	2.1E-05	5.1E-05	
Cadmium	2.77E-07	1.47E-06	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	2.8E-04	1.5E-03	
Chromium	6.18E-06	1.72E-05	No	5E-03	Low	No adverse effects	Water/IRIS,HEAST	500	1	1.2E-03	3.4E-03	
Cobalt	3.97E-08	8.17E-06	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	1.35E-05	1.01E-04	No	4E-02		Local GI irritation	HEAST			3.4E-04	2.5E-03	
Lead	7.08E-06	5.88E-05	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Magnesium	9.70E-04	2.22E-03	No	NA			NA/IRIS,HEAST			NA	NA	
Mercury	7.08E-08	5.38E-07	No	3E-04		Kidney effects	Oral/HEAST	1000	1	2.4E-04	1.8E-03	
Nickel	7.20E-06	1.56E-05	No	NA			NA/IRIS,HEAST			NA	NA	
Thallium	4.70E-07	3.42E-06	No	7E-05		Alopecia;inc. SGOT,LDH levels	Diet/HEAST	3000	1	6.7E-03	4.9E-02	
Vanadium	1.14E-05	2.63E-05	No	7E-03		No adverse effects	Water/HEAST	100	1	1.6E-03	3.8E-03	
Zinc	4.17E-05	2.68E-04	No	2E-01		Anemia	Therapeutic/HEAST	10	1	2.1E-04	1.3E-03	
VOLATILES												
1,1-Dichloroethene	1.65E-09	3.42E-09	No	9E-03	Medium	Hepatic lesions	Water/IRIS	1000	1	1.8E-07	3.8E-07	
1,1,1-Trichloroethane	1.71E-09	3.91E-09	No	9E-02	Medium	No adverse effects	Inhalation/IRIS	1000	1	1.9E-08	4.3E-08	
1,1,2-Trichloroethane	1.71E-09	3.91E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	4.3E-07	9.8E-07	
1,1,2,2-Tetrachloroethane	1.99E-09	3.91E-09	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloroethane	1.65E-09	3.42E-09	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloropropane	1.71E-09	3.91E-09	No	NA			NA/IRIS,HEAST			NA	NA	
1,3-Dichloropropene(cis)	1.71E-09	3.91E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	5.7E-06	1.3E-05	
1,3-Dichloropropene(trans)	1.71E-09	3.91E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	5.7E-06	1.3E-05	
2-Hexanone	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA	
2-Butanone	3.97E-09	7.83E-09	No	5E-02	Medium	Fetotoxicity	Inhalation/IRIS	1000	1	7.9E-08	1.6E-07	
4-Methyl-2-Pentanone	3.97E-09	7.83E-09	No	5E-02		Liver and kidney effects	Gavage/HEAST	1000	1	7.9E-08	1.6E-07	
Acetone	4.27E-09	9.30E-09	No	1E-01	Low	Inc. kidney,liver weights	Gavage/IRIS	1000	1	4.3E-08	9.3E-07	
Benzene	1.71E-09	3.91E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Bromodichloromethane	1.71E-09	3.91E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	8.6E-08	2.0E-07	
Bromoform	1.71E-09	3.91E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	8.6E-08	2.0E-07	
Carbon Tetrachloride	1.71E-09	3.91E-09	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	2.4E-06	5.6E-06	
Chlorobenzene	1.99E-09	3.91E-09	No	2E-02	Medium	Liver and kidney effects	Oral/IRIS,HEAST	1000		1.0E-07	2.0E-07	
Chloromethane	1.71E-09	3.42E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Chloroform	3.28E-09	6.85E-09	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	3.3E-07	6.8E-07	
Dibromochloromethane	1.71E-09	3.91E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	8.6E-08	2.0E-07	
Ethylbenzene	1.99E-09	3.91E-09	No	1E-01	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	2.0E-08	3.9E-08	
Methylene Chloride	0.00E+00	0.00E+00	No	6E-02	Medium	Liver toxicity	Water/IRIS	100	1	0.0E+00	0.0E+00	
Styrene	1.99E-09	3.91E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	1.0E-08	2.0E-08	
Tetrachloroethene	1.77E-09	3.91E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	1.8E-07	3.9E-07	
Toluene	1.92E-09	3.91E-09	No	2E-01	Medium	Liver and kidney weight	Gavage/IRIS	1000		9.6E-09	2.0E-08	
Trichloroethene	1.71E-09	3.91E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Vinyl chloride	3.28E-09	6.85E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Xylenes	1.99E-09	3.91E-09	No	2E+00	Medium	Hyperactivity;inc. mortality	Gavage/IRIS	100	1	1.0E-09	2.0E-09	

TABLE B.3-8 (cont.)
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											
SEMIVOLATILES											
1,3-Dichlorobenzene	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
1,4-Dichlorobenzene	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	1.43E-07	5.87E-07	No	NA			NA/IRIS,HEAST			NA	NA
2,4-Dinitrophenol	0.00E+00	0.00E+00	No	2E-03	Low	Cataract formation	Human/IRIS	1000	1	0.0E+00	0.0E+00
3-Nitroaniline	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	1.36E-07	1.81E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	2.3E-06	3.0E-06
Acenaphthylene	1.22E-07	7.34E-07	No	4E-03			NA/IRIS,HEAST			3.0E-05	1.8E-04
Anthracene	1.33E-07	1.17E-06	No	3E-01	Low	No adverse effects	Gavage/IRIS,HEAST	3000	1	4.4E-07	3.9E-06
Benzo(a)anthracene	2.14E-07	4.79E-06	No	4E-03			NA/IRIS,HEAST			5.4E-05	1.2E-03
Benzo(a)pyrene	2.21E-07	3.67E-06	No	4E-03			NA/IRIS,HEAST			5.5E-05	9.2E-04
Benzo(b)fluoranthene	2.33E-07	3.13E-06	No	4E-03			NA/IRIS,HEAST			5.8E-05	7.8E-04
Benzo(ghi)perylene	1.88E-07	1.66E-06	No	4E-03			NA/IRIS,HEAST			4.7E-05	4.2E-04
Benzo(k)fluoranthene	2.22E-07	3.33E-06	No	4E-03			NA/IRIS,HEAST			5.6E-05	8.3E-04
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	No	2E-02	Medium	Increased liver weight	Diet/IRIS,HEAST	1000	1	0.0E+00	0.0E+00
Chrysene	2.47E-07	5.38E-06	No	4E-03			NA/IRIS,HEAST			6.2E-05	1.3E-03
Dibenzo(a,h)anthracene	1.36E-07	7.83E-07	No	4E-03			NA/IRIS,HEAST			3.4E-05	2.0E-04
Fluoranthene	3.16E-07	7.34E-06	No	4E-02	Low	Neuropathy;liver,blood effects	Gavage/IRIS	3000	1	7.9E-06	1.8E-04
Fluorene	1.40E-07	1.22E-06	No	4E-02	Low	Neuropathy;liver,blood effects	Gavage/IRIS	3000	1	3.5E-06	3.1E-05
Indeno(123cd)pyrene	1.88E-07	1.61E-06	No	4E-03			NA/IRIS,HEAST			4.7E-05	4.0E-04
Naphthalene	1.24E-07	2.20E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000	1	3.1E-05	5.5E-05
Phenanthrene	2.07E-07	6.85E-06	No	4E-03			NA/IRIS,HEAST			5.2E-05	1.7E-03
Pyrene	2.94E-07	7.34E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	9.8E-06	2.4E-04
PESTICIDES											
4,4'-DDD	4.08E-09	7.34E-10	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	4.65E-09	1.91E-08	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	9.52E-09	6.60E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.9E-05	1.3E-04
PCB's											
Aroclor-1260	4.02E-08	3.96E-08	No	NA			NA/IRIS,HEAST			NA	NA

TABLE B.3-9
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) – MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) – MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	
												2.4E+00	MAXIMUM
												1.6E+00	MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER													
INORGANICS													
Antimony	0.00E+00	0.00E+00	No	4E-04	Low	Longevity;blood glucose,chol.	Water/IRIS,HEAST	1000	1	0.0E+00	0.0E+00		
Arsenic	8.41E-05	1.30E-04	No	1E-03		Keratosis,hyperpigmentation	Diet/HEAST	1	1	8.4E-02	1.3E-01		
Barium	2.71E-03	7.43E-03	No	7E-02	Medium	No adverse effects	Water/IRIS	3	1	3.9E-02	1.1E-01		
Beryllium	1.45E-05	1.68E-05	No	5E-03	Low	No adverse effects	Water/IRIS,HEAST	100	1	2.9E-03	3.3E-03		
Cadmium	5.14E-05	1.44E-04	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	5.1E-02	1.4E-01		
Chromium	2.12E-04	6.14E-04	No	5E-03	Low	No adverse effects	Water/IRIS,HEAST	500	1	4.2E-02	1.2E-01		
Cobalt	3.68E-04	5.38E-04	No	NA			NA/IRIS,HEAST			NA	NA		
Copper	1.40E-03	9.37E-03	No	4E-02		Local GI Irritation	HEAST			3.5E-02	2.3E-01		
Lead	1.08E-03	9.39E-03	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA		
Magnesium	1.59E-01	1.77E-01	No	NA			NA/IRIS,HEAST			NA	NA		
Mercury	3.45E-06	1.76E-05	No	3E-04		Kidney effects	Oral/HEAST	1000	1	1.2E-02	5.9E-02		
Nickel	7.38E-04	1.34E-03	No	NA			NA/IRIS,HEAST			NA	NA		
Thallium	3.91E-05	3.91E-05	No	7E-05		Alopecia;Inc. SGOT,LDH levels	Diet/HEAST	3000	1	5.6E-01	5.6E-01		
Vanadium	5.94E-04	1.99E-03	No	7E-03		No adverse effects	Water/HEAST	100	1	8.5E-02	2.8E-01		
Zinc	7.64E-03	4.08E-02	No	2E-01		Anemia	Therapeutic/HEAST	10	1	3.8E-02	2.0E-01		
VOLATILES													
1,1-Dichloroethene	6.75E-05	4.89E-05	No	9E-03	Medium	Hepatic lesions	Water/IRIS	1000	1	7.5E-03	5.4E-03		
1,1,1-Trichloroethane	6.75E-05	4.89E-05	No	9E-02	Medium	No adverse effects	Inhalation/IRIS	1000	1	7.5E-04	5.4E-04		
1,1,2-Trichloroethane	6.75E-05	4.89E-05	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.7E-02	1.2E-02		
1,1,2,2-Tetrachloroethane	6.75E-05	4.89E-05	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethane	6.75E-05	4.89E-05	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloropropane	6.75E-05	4.89E-05	No	NA			NA/IRIS,HEAST			NA	NA		
1,3-Dichloropropene(cis)	6.75E-05	4.89E-05	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2.3E-01	1.6E-01		
1,3-Dichloropropene(trans)	6.75E-05	4.89E-05	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2.3E-01	1.6E-01		
2-Hexanone	1.18E-04	9.78E-05	No	NA			NA/IRIS,HEAST			NA	NA		
2-Butanone	1.18E-04	9.78E-05	No	5E-02	Medium	Fetotoxicity	Inhalation/IRIS	1000	1	2.4E-03	2.0E-03		
4-Methyl-2-Pentanone	1.35E-04	9.78E-05	No	5E-02		Liver and kidney effects	Gavage/HEAST	1000	1	2.7E-03	2.0E-03		
Acetone	1.20E-04	9.78E-05	No	1E-01	Low	Inc. kidney,liver weights	Gavage/IRIS	1000	1	1.2E-03	9.8E-04		
Benzene	8.80E-05	4.79E-04	No	NA			NA/IRIS,HEAST			NA	NA		
Bromodichloromethane	6.75E-05	4.89E-05	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	3.4E-03	2.4E-03		
Bromoform	6.75E-05	4.89E-05	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	3.4E-03	2.4E-03		
Carbon Tetrachloride	6.75E-05	4.89E-05	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	9.6E-02	7.0E-02		
Chlorobenzene	8.50E-05	7.73E-04	No	2E-02	Medium	Liver and kidney effects	Oral/IRIS,HEAST	1000		4.2E-03	3.9E-02		
Chloromethane	6.75E-05	4.89E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Chloroform	1.35E-04	9.78E-05	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	1.4E-02	9.8E-03		
Dibromochloromethane	6.75E-05	4.89E-05	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	3.4E-03	2.4E-03		
Ethylbenzene	7.56E-05	4.31E-04	No	1E-01	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	7.6E-04	4.3E-03		
Methylene Chloride	0.00E+00	0.00E+00	No	6E-02	Medium	Liver toxicity	Water/IRIS	100	1	0.0E+00	0.0E+00		
Styrene	6.75E-05	4.89E-05	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	3.4E-04	2.4E-04		
Tetrachloroethene	6.75E-05	4.89E-05	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	6.8E-03	4.9E-03		
Toluene	5.07E-05	5.87E-05	No	2E-01	Medium	Liver and kidney weight	Gavage/IRIS	1000		2.5E-04	2.9E-04		
Trichloroethene	6.75E-05	4.89E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Vinyl chloride	1.35E-04	9.78E-05	No	NA			NA/IRIS,HEAST			NA	NA		
Xylenes	9.08E-05	1.08E-03	No	2E+00	Medium	Hyperactivity;Inc. mortality	Gavage/IRIS	100	1	4.5E-05	5.4E-04		

TABLE B.3-9 (cont)
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI)-MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI)-MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFC UNCERT./NTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX
SEMIVOLATILES											
1,3-Dichlorobenzene	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
1,4-Dichlorobenzene	1.47E-04	1.37E-04	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
2,4-Dinitrophenol	0.00E+00	0.00E+00	No	2E-03	Low	Cataract formation	Human/IRIS	1000	1	0.0E+00	0.0E+00
3-Nitroaniline	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	0.00E+00	0.00E+00	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	0.0E+00	0.0E+00
Acenaphthylene	1.53E-04	1.66E-04	No	4E-03			NA/IRIS,HEAST			3.8E-02	4.2E-02
Anthracene	0.00E+00	0.00E+00	No	3E-01	Low	No adverse effects	Gavage/IRIS,HEAST	3000	1	0.0E+00	0.0E+00
Benzo(a)anthracene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Benzo(a)pyrene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Benzo(b)fluoranthene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Benzo(ghi)perylene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Benzo(k)fluoranthene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	No	2E-02	Medium	Increased liver weight	Diet/IRIS,HEAST	1000	1	0.0E+00	0.0E+00
Chrysene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Fluoranthene	0.00E+00	0.00E+00	No	4E-02	Low	Neuropathy;liver,blood effects	Gavage/IRIS	3000	1	0.0E+00	0.0E+00
Fluorene	0.00E+00	0.00E+00	No	4E-02	Low	Neuropathy;liver,blood effects	Gavage/IRIS	3000	1	0.0E+00	0.0E+00
Indeno(123cd)pyrene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Naphthalene	0.00E+00	0.00E+00	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000	1	0.0E+00	0.0E+00
Phenanthrene	0.00E+00	0.00E+00	No	4E-03			NA/IRIS,HEAST			0.0E+00	0.0E+00
Pyrene	0.00E+00	0.00E+00	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	0.0E+00	0.0E+00
PESTICIDES											
4,4'-DDD	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDE	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA
4,4'-DDT	0.00E+00	0.00E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00
PCB's	0.00E+00 0.00E+00 0.00E+00	0.00E+00									
Aroclor-1260	0.00E+00	0.00E+00	No	NA			NA/IRIS,HEAST			NA	NA

TABLE B.4-1
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX (mg/liter)	IR CHILD (liter/day)	IR ADULT (liter/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																				
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Arsenic	4.30E-04	2.36E-04	8.65E-04	3.64E-04	3.69E-05	1.01E-04	5.70E-05	1.56E-04	0.009	0.013	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Barium	1.38E-02	7.58E-03	3.79E-02	2.08E-02	1.19E-03	3.25E-03	3.25E-03	8.91E-03	0.277	0.759	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Beryllium	7.40E-05	4.06E-05	8.50E-05	4.66E-05	6.34E-06	1.74E-05	7.29E-06	2.00E-05	0.001	0.002	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cadmium	2.63E-04	1.44E-04	7.35E-04	4.03E-04	2.25E-05	6.17E-05	6.30E-05	1.73E-04	0.005	0.015	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chromium	1.08E-03	5.92E-04	3.14E-03	1.72E-03	9.26E-05	2.54E-04	2.69E-04	7.37E-04	0.022	0.063	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cobalt	1.88E-03	1.03E-03	2.75E-03	1.51E-03	1.61E-04	4.41E-04	2.36E-04	6.46E-04	0.038	0.055	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Copper	7.15E-03	3.92E-03	4.79E-02	2.62E-02	6.12E-04	1.68E-03	4.11E-03	1.12E-02	0.143	0.958	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Lead	5.54E-03	3.04E-03	4.80E-02	2.63E-02	4.75E-04	1.30E-03	4.11E-03	1.13E-02	0.111	0.960	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Magnesium	8.13E-01	4.46E-01	9.05E-01	4.96E-01	6.97E-02	1.91E-01	7.76E-02	2.13E-01	16.267	18.100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Mercury	1.76E-06	9.67E-06	9.00E-06	4.93E-06	1.51E-06	4.14E-06	7.71E-06	2.11E-05	0.000	0.002	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Nickel	3.77E-03	2.07E-03	6.85E-03	3.75E-03	3.23E-04	8.86E-04	5.87E-04	1.61E-03	0.075	0.137	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Thallium	2.00E-04	1.10E-04	2.00E-04	1.10E-04	1.71E-05	4.70E-05	1.71E-05	4.70E-05	0.004	0.004	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Vanadium	3.04E-03	1.66E-03	1.01E-02	5.56E-03	2.60E-04	7.13E-04	8.70E-04	2.38E-03	0.061	0.203	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Zinc	3.90E-02	2.14E-02	2.08E-01	1.14E-01	3.34E-03	9.16E-03	1.79E-02	4.90E-02	0.780	4.170	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
VOLATILES																				
1,1-Dichloroethene	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethane	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene(cis)	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene(trans)	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2-Butanone	6.01E-04	3.29E-04	5.00E-04	2.74E-04	5.15E-05	1.41E-04	4.29E-05	1.17E-04	0.012	0.010	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2-Hexanone	6.01E-04	3.29E-04	5.00E-04	2.74E-04	5.15E-05	1.41E-04	4.29E-05	1.17E-04	0.012	0.010	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
4-Methyl-2-Pentanone	6.90E-04	3.78E-04	5.00E-04	2.74E-04	5.91E-05	1.62E-04	4.29E-05	1.17E-04	0.014	0.010	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Acetone	6.14E-04	3.36E-04	5.00E-04	2.74E-04	5.26E-05	1.44E-04	4.29E-05	1.17E-04	0.012	0.010	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzene	4.50E-04	2.46E-04	2.45E-03	1.34E-03	3.85E-05	1.06E-04	2.10E-04	5.75E-04	0.009	0.049	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bromoform	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chlorobenzene	4.34E-04	2.38E-04	3.95E-03	2.16E-03	3.72E-05	1.02E-04	3.39E-04	9.28E-04	0.009	0.079	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chloroform	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chloromethane	6.90E-04	3.78E-04	5.00E-04	2.74E-04	5.91E-05	1.62E-04	4.29E-05	1.17E-04	0.014	0.010	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	3.86E-04	2.12E-04	2.20E-03	1.21E-03	3.31E-05	9.07E-05	1.89E-04	5.17E-04	0.008	0.044	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Methylene Chloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Styrene	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Toluene	2.59E-04	1.42E-04	3.00E-04	1.64E-04	2.22E-05	6.09E-05	2.57E-05	7.05E-05	0.005	0.008	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	3.45E-04	1.89E-04	2.50E-04	1.37E-04	2.96E-05	8.10E-05	2.14E-05	5.87E-05	0.007	0.005	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	6.90E-04	3.78E-04	5.00E-04	2.74E-04	5.91E-05	1.62E-04	4.29E-05	1.17E-04	0.014	0.010	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Xylenes	4.64E-04	2.54E-04	5.50E-03	3.01E-03	3.98E-05	1.09E-04	4.71E-04	1.29E-03	0.009	0.110	0.756	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE B.4-1 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX (mg/liter)	IR CHILD (liter/day)	IR ADULT (liter/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																				
1,3-Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,4-Dichlorobenzene	7.52E-04	4.12E-04	7.00E-04	3.84E-04	6.45E-05	1.77E-04	6.00E-05	1.64E-04	0.015	0.014	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,4-Dinitrophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
3-Nitroaniline	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
3,3'-Dichlorobenzidine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Acenaphthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Acenaphthylene	7.82E-04	4.28E-04	8.50E-04	4.66E-04	6.70E-05	1.84E-04	7.28E-05	2.00E-04	0.016	0.017	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chrysene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Fluorene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																				
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
PCB's																				
Aroclor-1260	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.000	0.000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE B.4-2
SCENARIO 4
INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN AIR-MEAN (mg/m3)	CONC. IN AIR-MAX (mg/m3)	IR (m3/hour)	ET (hrs/dy)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
VOLATILES																				
1,1-Dichloroethene	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
1,1,1-Trichloroethane	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
1,1,2-Trichloroethane	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
1,1,2,2-Tetrachloroethane	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
1,2-Dichloroethane	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
1,2-Dichloropropane	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
1,3-Dichloropropene(cis)	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
1,3-Dichloropropene(trans)	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
2-Butanone	3.11E-04	6.43E-05	2.59E-04	5.36E-05	2.55E-05	2.64E-05	2.13E-05	2.20E-05	0.0360	0.0300	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
2-Hexanone	3.11E-04	6.43E-05	2.59E-04	5.36E-05	2.55E-05	2.64E-05	2.13E-05	2.20E-05	0.0360	0.0300	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
4-Methyl-2-Pentanone	3.57E-04	7.39E-05	2.59E-04	5.36E-05	2.93E-05	3.04E-05	2.13E-05	2.20E-05	0.0414	0.0300	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Acetone	3.17E-04	6.58E-05	2.59E-04	5.36E-05	2.61E-05	2.70E-05	2.13E-05	2.20E-05	0.0368	0.0300	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Benzene	2.33E-04	4.82E-05	1.27E-03	2.62E-04	1.91E-05	1.98E-05	1.04E-04	1.08E-04	0.0270	0.1470	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Bromodichloromethane	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Bromoform	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Carbon Tetrachloride	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Chlorobenzene	2.25E-04	4.65E-05	2.04E-03	4.23E-04	1.85E-05	1.91E-05	1.68E-04	1.74E-04	0.0260	0.2370	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Chloroform	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Chloromethane	3.57E-04	7.39E-05	2.59E-04	5.36E-05	2.93E-05	3.04E-05	2.13E-05	2.20E-05	0.0414	0.0300	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Dibromochloromethane	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Ethylbenzene	2.00E-04	4.14E-05	1.14E-03	2.36E-04	1.64E-05	1.70E-05	9.35E-05	9.69E-05	0.0232	0.1320	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Methylene Chloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.0000	0.0000	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Styrene	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Tetrachloroethene	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Toluene	1.34E-04	2.78E-05	1.55E-04	3.21E-05	1.10E-05	1.14E-05	1.28E-05	1.32E-05	0.0156	0.0180	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Trichloroethene	1.78E-04	3.70E-05	1.29E-04	2.68E-05	1.47E-05	1.52E-05	1.06E-05	1.10E-05	0.0207	0.0150	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Vinyl chloride	3.57E-04	7.39E-05	2.59E-04	5.36E-05	2.93E-05	3.04E-05	2.13E-05	2.20E-05	0.0414	0.0300	0.625	0.2	350	6	30	14.5	70	2100	10500	25550
Xylenes	2.40E-04	4.97E-05	2.64E-03	5.89E-04	1.97E-05	2.04E-05	2.34E-04	2.42E-04	0.0278	0.3300	0.625	0.2	350	6	30	14.5	70	2100	10500	25550

TABLE B.4-3
SCENARIO 4
COMPOUND CONCENTRATIONS EMITTED FROM TAP WATER
MELVILLE NORTH LANDFILL

COMPOUND NAME	Concentration tap water mean (mg/L)	Concentration tap water max (mg/L)	Flow Rate Of Shower Water (l/hr)	Fraction Of Contaminant Volatilized	One Half The Duration Of Shower (hr)	Bathroom Volume (m3)	Mean Conc In Bathroom (mg/m3)	Max Conc In Bathroom (mg/m3)
VOLATILES								
1,1-Dichloroethene	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
1,1,1-Trichloroethane	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
1,1,2-Trichloroethane	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
1,1,2,2-Tetrachloroethane	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
1,2-Dichloroethane	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
1,2-Dichloropropane	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
1,3-Dichloropropene(cis)	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
1,3-Dichloropropene(trans)	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
2-Butanone	0.0120	0.0100	400.0	0.9	0.1	12.0	3.6E-02	3.0E-02
2-Hexanone	0.0120	0.0100	400.0	0.9	0.1	12.0	3.6E-02	3.0E-02
4-Methyl-2-Pentanone	0.0138	0.0100	400.0	0.9	0.1	12.0	4.1E-02	3.0E-02
Acetone	0.0123	0.0100	400.0	0.9	0.1	12.0	3.7E-02	3.0E-02
Benzene	0.0090	0.0490	400.0	0.9	0.1	12.0	2.7E-02	1.5E-01
Bromodichloromethane	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Bromoform	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Carbon Tetrachloride	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Chlorobenzene	0.0087	0.0790	400.0	0.9	0.1	12.0	2.6E-02	2.4E-01
Chloroform	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Chloromethane	0.0138	0.0100	400.0	0.9	0.1	12.0	4.1E-02	3.0E-02
Dibromachloromethane	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Ethylbenzene	0.0077	0.0440	400.0	0.9	0.1	12.0	2.3E-02	1.3E-01
Methylene Chloride	0.0000	0.0000	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Styrene	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Tetrachloroethene	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Toluene	0.0052	0.0060	400.0	0.9	0.1	12.0	1.6E-02	1.8E-02
Trichloroethene	0.0069	0.0050	400.0	0.9	0.1	12.0	2.1E-02	1.5E-02
Vinyl chloride	0.0138	0.0100	400.0	0.9	0.1	12.0	4.1E-02	3.0E-02
Xylenes	0.0093	0.1100	400.0	0.9	0.1	12.0	2.8E-02	3.3E-01

TABLE B.4-4
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CONVERSION FACTOR (10E-6kg/mg)	EF (dys/yr)	ED CHILD (years)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																						
Antimony	6.1E-05	6.4E-06	6.7E-04	6.9E-05	5.3E-06	2.2E-06	5.7E-05	2.4E-05	4.64	50.40	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Arsenic	7.5E-05	7.8E-06	3.1E-04	3.2E-05	6.5E-06	2.7E-06	2.7E-05	1.1E-05	5.70	23.40	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Barium	2.4E-04	2.5E-05	3.6E-03	3.7E-04	2.1E-05	8.7E-06	3.0E-04	1.3E-04	18.47	269.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Beryllium	2.8E-06	2.9E-07	6.9E-06	7.1E-07	2.4E-07	1.0E-07	5.9E-07	2.4E-07	0.21	0.52	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Cadmium	7.5E-06	7.7E-07	4.0E-06	4.1E-06	6.4E-07	2.7E-07	3.4E-06	1.4E-06	0.57	3.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Chromium	1.7E-04	1.7E-05	4.7E-04	4.8E-05	1.4E-05	5.9E-06	4.0E-05	1.7E-05	12.63	35.20	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Cobalt	1.1E-04	1.1E-05	2.2E-04	2.3E-05	9.2E-06	3.8E-06	1.9E-05	7.8E-06	8.11	16.70	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Copper	3.7E-04	3.8E-05	2.7E-03	2.8E-04	3.1E-05	1.3E-05	2.3E-04	9.7E-05	27.64	208.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Lead	3.2E-04	2.0E-05	0.0E+00	0.0E+00	2.7E-05	6.8E-06	0.0E+00	0.0E+00	48.26	400.50	200	100	1.0E-06	350	6	24	a	14.5	70	2190	8760	25550
Magnesium	2.6E-02	2.7E-03	6.0E-02	6.2E-03	2.2E-03	9.3E-04	5.1E-03	2.1E-03	1983.05	4530.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Mercury	1.9E-06	2.0E-07	1.5E-05	1.5E-06	1.6E-07	6.9E-08	1.2E-06	5.2E-07	0.14	1.10	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Nickel	1.9E-04	2.0E-05	4.3E-04	4.4E-05	1.7E-05	6.9E-06	3.7E-05	1.5E-05	14.72	32.20	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Thallium	1.3E-05	1.3E-06	9.3E-05	9.6E-06	1.1E-06	4.5E-07	7.9E-06	3.3E-06	0.98	7.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Vanadium	3.1E-04	3.2E-05	7.1E-04	7.4E-05	2.6E-05	1.1E-05	6.1E-05	2.5E-05	23.25	53.80	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Zinc	1.1E-03	1.2E-04	7.2E-03	7.5E-04	9.7E-05	4.0E-05	6.2E-04	2.6E-04	85.15	547.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
VOLATILES																						
1,1-Dichloroethene	4.4E-08	4.6E-09	9.3E-08	9.6E-09	3.8E-09	1.6E-09	7.9E-09	3.3E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,1,1-Trichloroethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,1,2-Trichloroethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,1,2,2-Tetrachloroethane	5.4E-08	5.6E-09	1.1E-07	1.1E-08	4.6E-09	1.9E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,2-Dichloroethane	4.4E-08	4.6E-09	9.3E-08	9.6E-09	3.8E-09	1.6E-09	7.9E-09	3.3E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,2-Dichloropropane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,3-Dichloropropene(cis)	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,3-Dichloropropene(trans)	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
2-Hexanone	1.1E-07	1.1E-08	2.1E-07	2.2E-08	9.2E-09	3.8E-09	1.8E-08	7.5E-09	0.01	0.02	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
4-Methyl-2-Pentanone	1.1E-07	1.1E-08	2.1E-07	2.2E-08	9.2E-09	3.8E-09	1.8E-08	7.5E-09	0.01	0.02	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Acetone	1.2E-07	1.2E-08	2.5E-06	2.6E-07	9.9E-09	4.1E-09	2.2E-07	8.9E-08	0.01	0.19	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Benzene	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Bromodichloromethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Bromoform	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Carbon Tetrachloride	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Chlorobenzene	5.4E-08	5.6E-09	1.1E-07	1.1E-08	4.6E-09	1.9E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Chloroform	4.6E-08	4.8E-09	9.3E-08	9.6E-09	4.0E-09	1.6E-09	7.9E-09	3.3E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Chloromethane	8.9E-08	9.2E-09	1.9E-07	1.9E-08	7.6E-09	3.1E-09	1.6E-08	6.6E-09	0.01	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Dibromochloromethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Ethylbenzene	5.4E-08	5.6E-09	1.1E-07	1.1E-08	4.6E-09	1.9E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Styrene	5.4E-08	5.6E-09	1.1E-07	1.1E-08	4.6E-09	1.9E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Tetrachloroethene	4.8E-08	4.9E-09	1.1E-07	1.1E-08	4.1E-09	1.7E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Toluene	5.2E-08	5.4E-09	1.1E-07	1.1E-08	4.4E-09	1.8E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Trichloroethene	4.6E-08	4.8E-09	1.1E-07	1.1E-08	4.0E-09	1.6E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Vinyl chloride	8.9E-08	9.2E-09	1.9E-07	1.9E-08	7.6E-09	3.1E-09	1.6E-08	6.6E-09	0.01	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Xylenes	5.4E-08	5.6E-09	1.1E-07	1.1E-08	4.6E-09	1.9E-09	9.1E-09	3.8E-09	0.00	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550

TABLE B.4-4 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CONVERSION FACTOR (10E-6 g/mg)	EF (dys/yr)	ED CHILD (years)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																						
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
2-Methylnaphthalene	3.9E-06	4.0E-07	1.9E-05	1.6E-06	3.3E-07	1.4E-07	1.4E-06	5.6E-07	0.29	1.20	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Acenaphthene	3.7E-06	3.8E-07	4.9E-06	5.1E-07	3.2E-07	1.3E-07	4.2E-07	1.7E-07	0.28	0.37	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Acenaphthylene	3.3E-06	3.4E-07	2.0E-06	2.1E-06	2.8E-07	1.2E-07	1.7E-06	7.0E-07	0.25	1.50	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Anthracene	3.6E-06	3.7E-07	3.2E-05	3.3E-06	3.1E-07	1.3E-07	2.7E-06	1.1E-06	0.27	2.40	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Benzo(a)anthracene	5.8E-06	6.0E-07	1.3E-04	1.3E-05	5.0E-07	2.1E-07	1.1E-05	4.6E-06	0.44	9.80	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Benzo(a)pyrene	6.0E-06	6.2E-07	9.9E-05	1.0E-05	5.1E-07	2.1E-07	8.5E-06	3.5E-06	0.45	7.50	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Benzo(b)fluoranthene	6.3E-06	6.5E-07	8.5E-05	8.8E-06	5.4E-07	2.2E-07	7.3E-06	3.0E-06	0.48	6.40	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Benzo(ghi)perylene	5.1E-06	5.3E-07	4.5E-05	4.7E-06	4.3E-07	1.8E-07	3.9E-06	1.6E-06	0.38	3.40	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Benzo(k)fluoranthene	6.0E-06	6.2E-07	9.0E-05	9.3E-06	5.1E-07	2.1E-07	7.7E-06	3.2E-06	0.45	6.80	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Chrysene	6.7E-06	6.9E-07	1.5E-04	1.5E-05	5.7E-07	2.4E-07	1.2E-05	5.2E-06	0.50	11.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Dibenzo(a,h)anthracene	3.7E-06	3.8E-07	2.1E-05	2.2E-06	3.1E-07	1.3E-07	1.8E-06	7.5E-07	0.28	1.60	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Fluoranthene	8.6E-06	8.9E-07	2.0E-04	2.1E-05	7.3E-07	3.0E-07	1.7E-05	7.0E-06	0.65	15.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Fluorene	3.8E-06	3.9E-07	3.3E-05	3.4E-06	3.2E-07	1.3E-07	2.8E-06	1.2E-06	0.29	2.50	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Indeno(123cd)pyrene	5.1E-06	5.3E-07	4.4E-05	4.5E-06	4.4E-07	1.8E-07	3.7E-06	1.5E-06	0.38	3.30	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Naphthalene	3.4E-06	3.5E-07	6.0E-06	6.2E-07	2.9E-07	1.2E-07	5.1E-07	2.1E-07	0.25	0.45	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Phenanthrene	5.6E-06	5.8E-07	1.9E-04	1.9E-05	4.8E-07	2.0E-07	1.6E-05	6.6E-06	0.42	14.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
Pyrene	8.0E-06	8.2E-07	2.0E-04	2.1E-05	6.8E-07	2.8E-07	1.7E-05	7.0E-06	0.60	15.00	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
PESTICIDES																						
4,4'-DDD	3.7E-07	3.8E-08	6.6E-08	6.8E-09	3.2E-08	1.3E-08	5.7E-09	2.3E-09	0.03	0.01	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
4,4'-DDE	4.2E-07	4.3E-08	1.7E-08	1.8E-07	3.6E-08	1.5E-08	1.5E-07	6.1E-08	0.03	0.13	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
4,4'-DDT	8.6E-07	8.9E-08	8.0E-08	8.2E-07	7.4E-08	3.0E-08	5.1E-07	2.1E-07	0.06	0.45	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550
PCB's																						
Aroclor-1260	3.6E-06	3.8E-07	3.6E-06	3.7E-07	3.1E-07	1.3E-07	3.1E-07	1.3E-07	0.27	0.27	200	100	1.0E-06	350	6	24	1.0	14.5	70	2190	8760	25550

a: Relative Absorption Factor for lead of 0.5 used for children, and 0.3 used for adults.

TABLE B.4-5
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	ABS. DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6kg/mg)	SCR (mg/dy)	RAF (unit-less)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																					
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.64	50.40	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.70	23.40	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.47	269.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.21	0.52	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.57	3.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	12.63	35.20	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.11	16.70	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	27.84	208.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	46.26	400.50	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1983.05	4530.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.14	1.10	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	14.72	32.20	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.98	7.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	23.25	53.80	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.15	547.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethene	1.1E-09	2.3E-10	2.3E-09	4.8E-10	9.6E-11	9.9E-11	2.0E-10	2.1E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	1.3E-09	2.6E-10	2.6E-09	5.5E-10	1.2E-10	1.2E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethane	1.1E-09	2.3E-10	2.3E-09	4.8E-10	9.5E-11	9.9E-11	2.0E-10	2.1E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene(cis)	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene(trans)	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
2-Hexanone	2.7E-09	5.8E-10	5.3E-09	1.1E-09	2.3E-10	2.4E-10	4.8E-10	4.7E-10	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
4-Methyl-2-Pentanone	2.7E-09	5.8E-10	5.3E-09	1.1E-09	2.3E-10	2.4E-10	4.8E-10	4.7E-10	0.01	0.02	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Acetone	2.9E-09	6.0E-10	6.3E-09	1.3E-09	2.5E-10	2.6E-10	5.4E-09	5.6E-09	0.01	0.02	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Benzene	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.01	0.19	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Bromoform	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Chlorobenzene	1.3E-09	2.6E-10	2.6E-09	5.5E-10	1.2E-10	1.2E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Chloroform	1.2E-09	2.4E-10	2.3E-09	4.8E-10	9.9E-11	1.0E-10	2.0E-10	2.1E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Chloromethane	2.2E-09	4.6E-10	4.6E-09	9.6E-10	1.9E-10	2.0E-10	4.0E-10	4.1E-10	0.01	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	1.3E-09	2.6E-10	2.6E-09	5.5E-10	1.2E-10	1.2E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Styrene	1.3E-09	2.6E-10	2.6E-09	5.5E-10	1.2E-10	1.2E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	1.2E-09	2.5E-10	2.6E-09	5.5E-10	1.0E-10	1.1E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Toluene	1.3E-09	2.7E-10	2.6E-09	5.5E-10	1.1E-10	1.2E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	1.2E-09	2.4E-10	2.6E-09	5.5E-10	9.9E-11	1.0E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	2.2E-09	4.6E-10	4.6E-09	9.6E-10	1.9E-10	2.0E-10	4.0E-10	4.1E-10	0.01	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Xylenes	1.3E-09	2.6E-10	2.6E-09	5.5E-10	1.2E-10	1.2E-10	2.3E-10	2.3E-10	0.00	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550

TABLE B.4-5 (cont)
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
MELVILLE NORTH LANDFILL

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	ABS. DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	CONVERSION FACTOR (10E-6kg/mg)	SCR (mg/day)	RAF (unit-less)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	9.7E-08	2.0E-08	4.0E-07	8.2E-08	8.3E-09	8.6E-09	3.4E-08	3.5E-08	0.29	1.20	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Acenaphthene	9.2E-08	1.9E-08	1.2E-07	2.5E-08	7.9E-09	8.2E-09	1.0E-08	1.1E-08	0.28	0.37	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Acenaphthylene	8.2E-08	1.7E-08	5.0E-07	1.0E-07	7.0E-09	7.3E-09	4.3E-08	4.4E-08	0.25	1.50	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Anthracene	9.0E-08	1.9E-08	7.9E-07	1.6E-07	7.7E-09	8.0E-09	6.8E-08	7.0E-08	0.27	2.40	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	1.4E-07	3.0E-08	3.2E-08	6.7E-07	1.2E-08	1.3E-08	2.8E-07	2.9E-07	0.44	9.80	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	1.5E-07	3.1E-08	2.5E-08	5.1E-07	1.3E-08	1.3E-08	2.1E-07	2.2E-07	0.45	7.50	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.8E-07	3.3E-08	2.1E-08	4.4E-07	1.4E-08	1.4E-08	1.8E-07	1.9E-07	0.48	6.40	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	1.3E-07	2.8E-08	1.1E-08	2.3E-07	1.1E-08	1.1E-08	9.6E-08	1.0E-07	0.38	3.40	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	1.5E-07	3.1E-08	2.2E-08	4.7E-07	1.3E-08	1.3E-08	1.9E-07	2.0E-07	0.45	6.80	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Chrysene	1.7E-07	3.5E-08	3.6E-08	7.5E-07	1.4E-08	1.5E-08	3.1E-07	3.2E-07	0.50	11.00	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	9.2E-08	1.9E-08	5.3E-07	1.1E-07	7.9E-09	8.1E-09	4.5E-08	4.7E-08	0.28	1.60	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	2.1E-07	4.4E-08	5.0E-08	1.0E-08	1.8E-08	1.9E-08	4.3E-07	4.4E-07	0.65	15.00	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Fluorene	9.4E-08	2.0E-08	8.3E-07	1.7E-07	8.1E-09	8.4E-09	7.1E-08	7.3E-08	0.29	2.50	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	1.3E-07	2.8E-08	1.1E-08	2.3E-07	1.1E-08	1.1E-08	9.4E-08	9.7E-08	0.38	3.30	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Naphthalene	8.4E-08	1.7E-08	1.5E-07	3.1E-08	7.2E-09	7.5E-09	1.3E-08	1.3E-08	0.25	0.45	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	1.4E-07	2.9E-08	4.6E-08	9.6E-07	1.2E-08	1.2E-08	4.0E-07	4.1E-07	0.42	14.00	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
Pyrene	2.0E-07	4.1E-08	5.0E-08	1.0E-08	1.7E-08	1.8E-08	4.3E-07	4.4E-07	0.60	15.00	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDD	9.2E-09	1.9E-09	1.7E-09	3.4E-10	7.9E-10	8.2E-10	1.4E-10	1.5E-10	0.03	0.01	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
4,4'-DDE	1.0E-08	2.2E-09	4.3E-08	8.9E-09	9.0E-10	9.3E-10	3.7E-09	3.8E-09	0.03	0.13	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	2.1E-08	4.4E-09	1.5E-07	3.1E-08	1.8E-09	1.9E-09	1.3E-08	1.3E-08	0.06	0.45	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550
PCB's																					
Aroclor-1260	9.1E-08	1.9E-08	8.9E-08	1.8E-08	7.8E-09	8.0E-09	7.7E-09	7.9E-09	0.27	0.27	1.0E-06	500	0.01	350	6	30	14.5	70	2190	10950	25550

TABLE B.4-6
SCENARIO 4
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	AMBIENT DUST CON (kg/m3)	CONC. IN SOIL-MEA (mg/kg)	CONC. IN SOIL-MAX (mg/kg)	IR (m3/dy)	EF (dys/yr)	ED CHILD (years)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																					
Antimony	1.89E-09	3.92E-10	2.05E-08	4.25E-09	1.62E-10	1.68E-10	1.76E-09	1.82E-09	3.08E-10	4.64	50.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	2.32E-09	4.81E-10	9.53E-09	1.97E-09	1.99E-10	2.06E-10	8.17E-10	8.46E-10	3.08E-10	5.70	23.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Barium	7.52E-09	1.56E-09	1.10E-07	2.27E-08	6.45E-10	6.68E-10	9.36E-09	9.73E-09	3.08E-10	18.47	269.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	8.66E-11	1.79E-11	2.12E-10	4.39E-11	7.42E-12	7.69E-12	1.82E-11	1.88E-11	3.08E-10	0.21	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	2.30E-10	4.77E-11	1.22E-09	2.53E-10	1.97E-11	2.05E-11	1.05E-10	1.08E-10	3.08E-10	0.57	3.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	6.14E-09	1.07E-09	1.43E-08	2.97E-09	4.41E-10	4.57E-10	1.23E-09	1.27E-09	3.08E-10	12.63	35.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	3.30E-09	6.85E-10	6.90E-09	1.41E-09	2.83E-10	2.93E-10	5.83E-10	6.04E-10	3.08E-10	8.11	16.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	1.13E-08	2.33E-09	6.38E-08	1.74E-08	9.65E-10	1.00E-09	7.19E-09	7.45E-09	3.08E-10	27.84	208.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	1.97E-08	4.07E-09	1.63E-07	3.38E-08	1.69E-09	1.75E-09	1.40E-08	1.45E-08	3.08E-10	48.26	400.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Magnesium	8.08E-07	1.67E-07	1.86E-06	3.82E-07	6.92E-08	7.17E-08	1.56E-07	1.64E-07	3.08E-10	1963.05	4530.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	5.90E-11	1.22E-11	4.48E-10	9.26E-11	5.05E-12	5.23E-12	3.84E-11	3.96E-11	3.08E-10	0.14	1.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	5.99E-09	1.24E-09	1.31E-08	2.72E-09	5.14E-10	5.32E-10	1.12E-09	1.16E-09	3.08E-10	14.72	32.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Thallium	3.91E-10	8.10E-11	2.85E-09	5.91E-10	3.35E-11	3.47E-11	2.44E-10	2.53E-10	3.08E-10	0.96	7.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Vanadium	9.47E-09	1.96E-09	2.19E-08	4.54E-09	8.12E-10	8.41E-10	1.88E-09	1.95E-09	3.08E-10	23.25	53.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	3.47E-08	7.19E-09	2.23E-07	4.62E-08	2.97E-09	3.08E-09	1.91E-08	1.98E-08	3.08E-10	85.15	547.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethene	1.37E-12	2.84E-13	2.85E-12	5.91E-13	1.17E-13	1.22E-13	2.44E-13	2.53E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	1.66E-12	3.44E-13	3.26E-12	6.75E-13	1.42E-13	1.47E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloroethane	1.37E-12	2.84E-13	2.85E-12	5.91E-13	1.17E-13	1.22E-13	2.44E-13	2.53E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloropropane	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropene(cis)	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropene(trans)	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
2-Butanone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
2-Hexanone	3.31E-12	6.85E-13	6.52E-12	1.35E-12	2.84E-13	2.94E-13	5.59E-13	5.79E-13	3.08E-10	0.01	0.02	20	350	6	30	1.0	14.5	70	2190	10950	25550
4-Methyl-2-Pentanone	3.31E-12	6.85E-13	6.52E-12	1.35E-12	2.84E-13	2.94E-13	5.59E-13	5.79E-13	3.08E-10	0.01	0.02	20	350	6	30	1.0	14.5	70	2190	10950	25550
Acetone	3.56E-12	7.36E-13	7.74E-11	1.60E-11	3.05E-13	3.16E-13	6.63E-12	6.87E-12	3.08E-10	0.01	0.19	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromodichloromethane	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromoform	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon Tetrachloride	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chlorobenzene	1.66E-12	3.44E-13	3.26E-12	6.75E-13	1.42E-13	1.47E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chloroform	1.42E-12	2.95E-13	2.85E-12	5.91E-13	1.22E-13	1.26E-13	2.44E-13	2.53E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chloromethane	2.73E-12	5.66E-13	5.70E-12	1.18E-12	2.34E-13	2.42E-13	4.89E-13	5.06E-13	3.08E-10	0.01	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibromochloromethane	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Ethylbenzene	1.66E-12	3.44E-13	3.26E-12	6.75E-13	1.42E-13	1.47E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Methylene Chloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	1.66E-12	3.44E-13	3.26E-12	6.75E-13	1.42E-13	1.47E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	1.47E-12	3.05E-13	3.26E-12	6.75E-13	1.26E-13	1.31E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Toluene	1.60E-12	3.31E-13	3.26E-12	6.75E-13	1.37E-13	1.42E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Trichloroethene	1.42E-12	2.95E-13	3.26E-12	6.75E-13	1.22E-13	1.26E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Vinyl chloride	2.73E-12	5.66E-13	5.70E-12	1.18E-12	2.34E-13	2.42E-13	4.89E-13	5.06E-13	3.08E-10	0.01	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
Xylenes	1.66E-12	3.44E-13	3.26E-12	6.75E-13	1.42E-13	1.47E-13	2.79E-13	2.89E-13	3.08E-10	0.00	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE B.4 – 6 (cont.)
SCENARIO 4
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
MELVILLE NORTH LANDFILL

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL – MEAN (mg/kg)	CONC. IN SOIL – MAX (mg/kg)	IR (m3/dy)	EF (dys/yr)	ED CHILD (years)	ED ADULT (years)	RAF (unit – less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON – CANCER (days)	AT ADULT NON – CANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,3 – Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E – 10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,4 – Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E – 10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
2 – Methylnaphthalene	1.19E – 10	2.47E – 11	4.88E – 10	1.01E – 10	1.02E – 11	1.06E – 11	4.19E – 11	4.34E – 11	3.08E – 10	0.29	1.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4 – Dinitrophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E – 10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
3 – Nitroaniline	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E – 10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
3,3' – Dichlorobenzidine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E – 10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthene	1.13E – 10	2.35E – 11	1.51E – 10	3.12E – 11	9.71E – 12	1.01E – 11	1.29E – 11	1.34E – 11	3.08E – 10	0.28	0.37	20	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthylene	1.01E – 10	2.10E – 11	6.11E – 10	1.27E – 10	8.68E – 12	8.99E – 12	5.24E – 11	5.42E – 11	3.08E – 10	0.25	1.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	1.11E – 10	2.29E – 11	9.78E – 10	2.03E – 10	9.48E – 12	9.81E – 12	8.38E – 11	8.68E – 11	3.08E – 10	0.27	2.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	1.78E – 10	3.69E – 11	3.99E – 09	8.27E – 10	1.53E – 11	1.58E – 11	3.42E – 10	3.54E – 10	3.08E – 10	0.44	9.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	1.84E – 10	3.82E – 11	3.08E – 09	6.33E – 10	1.58E – 11	1.64E – 11	2.62E – 10	2.71E – 10	3.08E – 10	0.45	7.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.94E – 10	4.03E – 11	2.81E – 09	5.40E – 10	1.67E – 11	1.73E – 11	2.23E – 10	2.31E – 10	3.08E – 10	0.48	6.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ghi)perylene	1.56E – 10	3.24E – 11	1.39E – 09	2.87E – 10	1.34E – 11	1.39E – 11	1.19E – 10	1.23E – 10	3.08E – 10	0.38	3.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	1.85E – 10	3.83E – 11	2.77E – 09	5.74E – 10	1.59E – 11	1.64E – 11	2.37E – 10	2.46E – 10	3.08E – 10	0.45	6.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E – 10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	2.05E – 10	4.25E – 11	4.48E – 09	9.26E – 10	1.76E – 11	1.82E – 11	3.84E – 10	3.98E – 10	3.08E – 10	0.50	11.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	1.13E – 10	2.34E – 11	6.52E – 10	1.35E – 10	9.69E – 12	1.00E – 11	5.59E – 11	5.79E – 11	3.08E – 10	0.28	1.60	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	2.63E – 10	5.46E – 11	6.11E – 09	1.27E – 09	2.26E – 11	2.34E – 11	5.24E – 10	5.42E – 10	3.08E – 10	0.65	15.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	1.16E – 10	2.41E – 11	1.02E – 09	2.11E – 10	9.97E – 12	1.03E – 11	8.73E – 11	9.04E – 11	3.08E – 10	0.29	2.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	1.57E – 10	3.24E – 11	1.34E – 09	2.78E – 10	1.34E – 11	1.39E – 11	1.15E – 10	1.19E – 10	3.08E – 10	0.38	3.30	20	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	1.03E – 10	2.14E – 11	1.63E – 10	3.60E – 11	8.67E – 12	9.19E – 12	1.57E – 11	1.63E – 11	3.08E – 10	0.25	0.45	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	1.72E – 10	3.57E – 11	5.70E – 09	1.18E – 09	1.48E – 11	1.53E – 11	4.89E – 10	5.06E – 10	3.08E – 10	0.42	14.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	2.45E – 10	5.08E – 11	6.11E – 09	1.27E – 09	2.10E – 11	2.18E – 11	5.24E – 10	5.42E – 10	3.08E – 10	0.60	15.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																					
4,4' – DDD	1.13E – 11	2.35E – 12	2.04E – 12	4.22E – 13	9.72E – 13	1.01E – 12	1.75E – 13	1.81E – 13	3.08E – 10	0.03	0.01	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4' – DDE	1.29E – 11	2.67E – 12	5.30E – 11	1.10E – 11	1.11E – 12	1.15E – 12	4.54E – 12	4.70E – 12	3.08E – 10	0.03	0.13	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4' – DDT	2.64E – 11	5.47E – 12	1.83E – 10	3.80E – 11	2.26E – 12	2.35E – 12	1.57E – 11	1.63E – 11	3.08E – 10	0.06	0.45	20	350	6	30	1.0	14.5	70	2190	10950	25550
PCB's																					
Aroclor – 1260	1.12E – 10	2.31E – 11	1.10E – 10	2.28E – 11	9.57E – 12	9.91E – 12	9.43E – 12	9.76E – 12	3.08E – 10	0.27	0.27	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE B.4-7
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX	TOTAL PATHWAY RISK	TOTAL EXPOSURE RISK	
														2.6E-04	3.4E-04	CHILD-MEAN
														7.2E-04	7.6E-04	ADULT-MEAN
														2.6E-04	9.3E-04	CHILD-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER														7.1E-04	1.0E-03	ADULT-MAX
INORGANICS																
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Arsenic	3.7E-05	1.0E-04	5.7E-05	1.6E-04	No	1.75E+00	A	Skin	Water/IRIS	6.4E-05	1.8E-04	1.0E-04	2.7E-04			
Barium	1.2E-03	3.2E-03	3.3E-03	8.9E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Beryllium	6.3E-06	1.7E-05	7.3E-06	2.0E-05	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	2.7E-05	7.5E-05	3.1E-05	8.6E-05			
Cadmium	2.3E-05	6.2E-05	6.3E-05	1.7E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Chromium	9.3E-05	2.5E-04	2.7E-04	7.4E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Cobalt	1.6E-04	4.4E-04	2.4E-04	6.5E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Copper	6.1E-04	1.7E-03	4.1E-03	1.1E-02	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Lead	4.7E-04	1.3E-03	4.1E-03	1.1E-02	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Magnesium	7.0E-02	1.9E-01	7.8E-02	2.1E-01	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Mercury	1.5E-06	4.1E-06	7.7E-06	2.1E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Nickel	3.2E-04	8.9E-04	5.9E-04	1.6E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Thallium	1.7E-05	4.7E-05	1.7E-05	4.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Vanadium	2.6E-04	7.1E-04	8.7E-04	2.4E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Zinc	3.3E-03	9.2E-03	1.8E-02	4.9E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
VOLATILES																
1,1-Dichloroethene	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	6.00E-01	C	Adrenal pheochromocytomas	Oral/IRIS	1.8E-05	4.9E-05	1.3E-05	3.5E-05			
1,1,1-Trichloroethane	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
1,1,2-Trichloroethane	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.7E-06	4.6E-06	1.2E-06	3.3E-06			
1,1,2,2-Tetrachloroethane	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	5.9E-06	1.6E-05	4.3E-06	1.2E-05			
1,2-Dichloroethane	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	2.7E-06	7.4E-06	1.9E-06	5.3E-06			
1,2-Dichloropropane	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	6.80E-02	B2	Liver	Gavage/HEAST	2.0E-06	5.5E-06	1.5E-06	4.0E-06			
1,3-Dichloropropene(cis)	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	5.3E-06	1.5E-05	3.9E-06	1.1E-05			
1,3-Dichloropropene(trans)	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	5.3E-06	1.5E-05	3.9E-06	1.1E-05			
2-Butanone	5.1E-05	1.4E-04	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
2-Hexanone	5.1E-05	1.4E-04	4.3E-05	1.2E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
4-Methyl-2-Pentanone	5.9E-05	1.6E-04	4.3E-05	1.2E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Acetone	5.3E-05	1.4E-04	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Benzene	3.9E-05	1.1E-04	2.1E-04	5.8E-04	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.1E-06	3.1E-06	6.1E-06	1.7E-05			
Bromodichloromethane	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	3.8E-06	1.1E-05	2.8E-06	7.6E-06			
Bromoform	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	7.90E-03	B2	Neoplastic lesions-intestine	Gavage/IRIS	2.3E-07	6.4E-07	1.7E-07	4.6E-07			
Carbon Tetrachloride	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	3.8E-06	1.1E-05	2.8E-06	7.6E-06			
Chlorobenzene	3.7E-05	1.0E-04	3.4E-04	9.3E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Chloroform	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	1.8E-07	4.9E-07	1.3E-07	3.6E-07			
Chloromethane	5.9E-05	1.6E-04	4.3E-05	1.2E-04	No	1.30E-02	C	Kidney	Inhalation/HEAST	7.7E-07	2.1E-06	5.6E-07	1.5E-06			
Dibromochloromethane	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	6.40E-02	C	Hepatocellular adenoma/carcinoma	Gavage/IRIS	2.5E-06	6.8E-06	1.8E-06	4.9E-06			
Ethylbenzene	3.3E-05	9.1E-05	1.9E-04	5.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.50E-03	B2	Hepatocellular carcinoma	Water/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Styrene	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	3.00E-02	B2	Lung, bronchi	Gavage/HEAST	8.9E-07	2.4E-06	6.4E-07	1.8E-06			
Tetrachloroethene	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	5.10E-02	B2	Liver	Gavage/HEAST	1.5E-06	4.1E-06	1.1E-06	3.0E-06			
Toluene	2.2E-05	6.1E-05	2.8E-05	7.0E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Trichloroethene	3.0E-05	8.1E-05	2.1E-05	5.9E-05	No	1.10E-02	B2	Liver	Gavage/HEAST	3.3E-07	8.9E-07	2.4E-07	6.5E-07			
Vinyl chloride	5.9E-05	1.6E-04	4.3E-05	1.2E-04	No	1.90E+00	A	Lung	Diet/HEAST	1.1E-04	3.1E-04	8.1E-05	2.2E-04			
Xylenes	4.0E-05	1.1E-04	4.7E-04	1.3E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00			

TABLE B.4-7
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER													
SEMIVOLATILES													
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1,4-Dichlorobenzene	6.4E-05	1.8E-04	8.0E-05	1.6E-04	No	2.40E-02	C	Liver	Gavage/HEAST	1.5E-06	4.2E-06	1.4E-06	3.9E-06
2-Methylnaphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	6.7E-05	1.8E-04	7.3E-05	2.0E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Liver, lung, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, stomach	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Naphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral,IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PCB's													
Aroclor-1260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00

TABLE B.4 8
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX	TOTAL PATHWAY RISK
														6.1E-08 CHILD-MEAN
														6.4E-08 ADULT-MEAN
														6.6E-08 CHILD-MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL														1.3E-07 ADULT-MAX
VOLATILES														
1,1-Dichloroethene	9.5E-11	9.9E-11	2.0E-10	2.1E-10	No	6.00E-01	C	Adrenal pheochromocytomas	Oral/IRIS	5.7E-11	5.9E-11	1.2E-10	1.2E-10	
1,1,1-Trichloroethane	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,1,2-Trichloroethane	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	5.6E-12	5.8E-12	1.3E-11	1.3E-11	
1,1,2,2-Tetrachloroethane	1.2E-10	1.2E-10	2.3E-10	2.3E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2.3E-11	2.4E-11	4.5E-11	4.7E-11	
1,2-Dichloroethane	9.5E-11	9.9E-11	2.0E-10	2.1E-10	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	8.7E-12	9.0E-12	1.8E-11	1.9E-11	
1,2-Dichloropropane	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	6.80E-02	B2	Liver	Gavage/HEAST	6.7E-12	7.0E-12	1.5E-11	1.6E-11	
1,3-Dichloropropene(cis)	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	1.8E-11	1.8E-11	4.1E-11	4.2E-11	
1,3-Dichloropropene(trans)	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	1.8E-11	1.8E-11	4.1E-11	4.2E-11	
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
2-Hexanone	2.3E-10	2.4E-10	4.5E-10	4.7E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
4-Methyl-2-Pentanone	2.3E-10	2.4E-10	4.5E-10	4.7E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Acetone	2.5E-10	2.6E-10	5.4E-09	5.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzene	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	2.90E-02	A	Leukemia	Occupational/IRIS	2.9E-12	3.0E-12	6.6E-12	6.8E-12	
Bromodichloromethane	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	1.3E-11	1.3E-11	2.9E-11	3.1E-11	
Bromoform	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	7.90E-03	B2	Neoplastic lesions-intestine	Gavage/IRIS	7.8E-13	8.1E-13	1.8E-12	1.9E-12	
Carbon Tetrachloride	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	1.3E-11	1.3E-11	2.9E-11	3.1E-11	
Chlorobenzene	1.2E-10	1.2E-10	2.3E-10	2.3E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chloroform	9.9E-11	1.0E-10	2.0E-10	2.1E-10	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	6.0E-13	6.3E-13	1.2E-12	1.3E-12	
Chloromethane	1.9E-10	2.0E-10	4.0E-10	4.1E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	2.5E-12	2.6E-12	5.2E-12	5.3E-12	
Dibromochloromethane	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	8.40E-02	C	Hepatocellular adenoma/carcinoma	Gavage/IRIS	8.3E-12	8.6E-12	1.9E-11	2.0E-11	
Ethylbenzene	1.2E-10	1.2E-10	2.3E-10	2.3E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.50E-03	B2	Hepatocellular carcinoma	Water/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	1.2E-10	1.2E-10	2.3E-10	2.3E-10	No	3.00E-02	B2	Lung, bronchi	Gavage/HEAST	3.5E-12	3.6E-12	6.8E-12	7.0E-12	
Tetrachloroethene	1.0E-10	1.1E-10	2.3E-10	2.3E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	5.2E-12	5.4E-12	1.2E-11	1.2E-11	
Toluene	1.1E-10	1.2E-10	2.3E-10	2.3E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Trichloroethene	9.9E-11	1.0E-10	2.3E-10	2.3E-10	No	1.10E-02	B2	Liver	Gavage/HEAST	1.1E-12	1.1E-12	2.5E-12	2.6E-12	
Vinyl chloride	1.9E-10	2.0E-10	4.0E-10	4.1E-10	No	1.90E+00	A	Lung	Diet/HEAST	3.6E-10	3.7E-10	7.5E-10	7.8E-10	
Xylenes	1.2E-10	1.2E-10	2.3E-10	2.3E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
SEMIVOLATILES														
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
2-Methylnaphthalene	3.3E-09	3.6E-09	3.4E-08	3.5E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Acenaphthene	7.9E-09	8.2E-09	1.0E-08	1.1E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Acenaphthylene	7.0E-09	7.3E-09	4.3E-08	4.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Anthracene	7.7E-09	8.0E-09	6.6E-08	7.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzo(a)anthracene	1.2E-08	1.3E-08	2.8E-07	2.9E-07	No	NA	B2	Liver, lung, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzo(a)pyrene	1.3E-08	1.3E-08	2.1E-07	2.2E-07	No	NA	B2	Lung, stomach	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzo(b)fluoranthene	1.4E-08	1.4E-08	1.8E-07	1.9E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzo(ghi)perylene	1.1E-08	1.1E-08	9.6E-08	1.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzo(k)fluoranthene	1.3E-08	1.3E-08	1.9E-07	2.0E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chrysene	1.4E-08	1.5E-08	3.1E-07	3.2E-07	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Dibenzo(a,h)anthracene	7.9E-09	8.1E-09	4.5E-08	4.7E-08	No	NA	B2	Lung, mammary	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Fluoranthene	1.8E-08	1.9E-08	4.3E-07	4.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Fluorene	8.1E-09	8.4E-09	7.1E-08	7.3E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Indeno(123cd)pyrene	1.1E-08	1.1E-08	9.4E-08	9.7E-08	No	NA	B2	Lung, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Naphthalene	7.2E-09	7.5E-09	1.3E-08	1.3E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Phenanthrene	1.2E-08	1.2E-08	4.0E-07	4.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Pyrene	1.7E-08	1.8E-08	4.3E-07	4.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
PESTICIDES														
4,4'-DDD	7.9E-10	8.2E-10	1.4E-10	1.5E-10	No	2.40E-01	B2	Liver tumor	Oral,IRIS	1.9E-10	2.0E-10	3.4E-11	3.5E-11	
4,4'-DDE	9.0E-10	9.3E-10	3.7E-09	3.8E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	3.1E-10	3.2E-10	1.3E-09	1.3E-09	
4,4'-DDT	1.8E-09	1.9E-09	1.3E-08	1.3E-08	No	3.40E-01	B2	Liver tumor	Diet/IRIS	6.3E-10	6.5E-10	4.3E-09	4.5E-09	
PCB's														
Aroclor-1260	7.8E-09	8.0E-09	7.7E-09	7.9E-09	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	6.0E-08	6.2E-08	5.9E-08	6.1E-08	

TABLE B.4-9
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX	TOTAL PATHWAY RISK
														5.4E-05 CHILD-MEAN
														2.2E-05 ADULT-MEAN
														6.6E-04 CHILD-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST														2.7E-04 ADULT-MAX
INORGANICS														
Antimony	5.3E-06	2.2E-06	5.7E-06	2.4E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Arsenic	6.5E-06	2.7E-06	2.7E-05	1.1E-05	No	1.75E+00	A	Skin	Water/IRIS	1.1E-05	4.7E-06	4.6E-05	1.9E-05	
Barium	2.1E-05	8.7E-06	3.0E-04	1.3E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Beryllium	2.4E-07	1.0E-07	5.9E-07	2.4E-07	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	1.0E-06	4.3E-07	2.5E-06	1.1E-06	
Cadmium	6.4E-07	2.7E-07	3.4E-06	1.4E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chromium	1.4E-05	5.9E-06	4.0E-05	1.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Cobalt	9.2E-06	3.8E-06	1.9E-05	7.8E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Copper	3.1E-05	1.3E-05	2.3E-04	9.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Lead	2.7E-05	6.8E-06	0.0E+00	0.0E+00	No	NA	B2	Renal tumors	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Magnesium	2.2E-03	9.3E-04	5.1E-03	2.1E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Mercury	1.6E-07	6.8E-08	1.2E-06	5.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Nickel	1.7E-05	6.9E-06	3.7E-05	1.5E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Thallium	1.1E-06	4.5E-07	7.9E-06	3.3E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Vanadium	2.6E-05	1.1E-05	6.1E-05	2.5E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Zinc	9.7E-05	4.0E-05	6.2E-04	2.6E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
VOLATILES														
1,1-Dichloroethene	3.8E-09	1.6E-09	7.9E-09	3.3E-09	No	6.00E-01	C	Adrenal pheochromocytomas	Oral/IRIS	2.3E-09	9.5E-10	4.8E-09	2.0E-09	
1,1,1-Trichloroethane	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,1,2-Trichloroethane	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	2.3E-10	9.4E-11	5.2E-10	2.1E-10	
1,1,2,2-Tetrachloroethane	4.6E-09	1.9E-09	9.1E-09	3.8E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	9.2E-10	3.8E-10	1.8E-09	7.5E-10	
1,2-Dichloroethane	3.8E-09	1.6E-09	7.9E-09	3.3E-09	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	3.5E-10	1.4E-10	7.2E-10	3.0E-10	
1,2-Dichloropropane	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	2.7E-10	1.1E-10	6.2E-10	2.6E-10	
1,3-Dichloropropene(cis)	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	7.1E-10	3.0E-10	1.6E-09	6.8E-10	
1,3-Dichloropropene(trans)	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	7.1E-10	3.0E-10	1.6E-09	6.8E-10	
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
2-Hexanone	9.2E-09	3.8E-09	1.8E-08	7.5E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
4-Methyl-2-Pentanone	9.2E-09	3.8E-09	1.8E-08	7.5E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Acetone	9.9E-09	4.1E-09	2.2E-07	8.9E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzene	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.1E-10	4.6E-11	2.6E-10	1.1E-10	
Bromodichloromethane	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	5.2E-10	2.1E-10	1.2E-09	4.9E-10	
Bromoform	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	7.90E-03	B2	Neoplastic lesions - intestine	Gavage/IRIS	3.1E-11	1.3E-11	7.2E-11	3.0E-11	
Carbon Tetrachloride	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	5.2E-10	2.1E-10	1.2E-09	4.9E-10	
Chlorobenzene	4.6E-09	1.9E-09	9.1E-09	3.8E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chloroform	4.0E-09	1.6E-09	7.9E-09	3.3E-09	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	2.4E-11	1.0E-11	4.8E-11	2.0E-11	
Chloromethane	7.6E-09	3.1E-09	1.6E-08	6.6E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	9.9E-11	4.1E-11	2.1E-10	8.5E-11	
Dibromochloromethane	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	8.40E-02	C	Hepatocellular adenoma/carcinoma	Gavage/IRIS	3.3E-10	1.4E-10	7.6E-10	3.2E-10	
Ethylbenzene	4.6E-09	1.9E-09	9.1E-09	3.8E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.50E-03	B2	Hepatocellular carcinoma	Water/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	4.6E-09	1.9E-09	9.1E-09	3.8E-09	No	3.00E-02	B2	Lung, bronchi	Gavage/HEAST	1.4E-10	5.7E-11	2.7E-10	1.1E-10	
Tetrachloroethene	4.1E-09	1.7E-09	9.1E-09	3.8E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	2.1E-10	8.6E-11	4.6E-10	1.9E-10	
Toluene	4.4E-09	1.8E-09	9.1E-09	3.8E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Trichloroethene	4.0E-09	1.6E-09	9.1E-09	3.8E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	4.4E-11	1.8E-11	1.0E-10	4.1E-11	
Vinyl chloride	7.6E-09	3.1E-09	1.6E-08	6.6E-09	No	1.90E+00	A	Lung	Diet/HEAST	1.4E-08	6.0E-09	3.0E-08	1.2E-08	
Xylenes	4.6E-09	1.9E-09	9.1E-09	3.8E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

TABLE B.4-9 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST													
SEMIVOLATILES													
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2-Methylnaphthalene	3.3E-07	1.4E-07	1.4E-06	5.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthene	3.2E-07	1.3E-07	4.2E-07	1.7E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	2.8E-07	1.2E-07	1.7E-06	7.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Anthracene	3.1E-07	1.3E-07	2.7E-06	1.1E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	5.0E-07	2.1E-07	1.1E-05	4.6E-06	No	1.15E+01	B2	Liver, lung, skin	IRIS	5.7E-06	2.4E-06	1.3E-04	5.3E-05
Benzo(a)pyrene	5.1E-07	2.1E-07	8.5E-06	3.5E-06	No	1.15E+01	B2	Lung, stomach	IRIS	5.9E-06	2.4E-06	9.8E-05	4.1E-05
Benzo(b)fluoranthene	5.4E-07	2.2E-07	7.3E-06	3.0E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	6.2E-06	2.6E-06	8.3E-05	3.5E-05
Benzo(ghi)perylene	4.3E-07	1.8E-07	3.9E-06	1.6E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	5.1E-07	2.1E-07	7.7E-06	3.2E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	5.9E-06	2.5E-06	8.9E-05	3.7E-05
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	5.7E-07	2.4E-07	1.2E-05	5.2E-06	No	1.15E+01	B2	Malignant lymphoma	IRIS	6.6E-06	2.7E-06	1.4E-04	5.9E-05
Dibenzo(a,h)anthracene	3.1E-07	1.3E-07	1.8E-06	7.5E-07	No	1.15E+01	B2	Lung, mammary	IRIS	3.6E-06	1.5E-06	2.1E-05	8.6E-06
Fluoranthene	7.3E-07	3.0E-07	1.7E-05	7.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	3.2E-07	1.3E-07	2.8E-06	1.2E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	4.4E-07	1.8E-07	3.7E-06	1.5E-06	No	1.15E+01	B2	Lung, skin	IRIS	5.0E-06	2.1E-06	4.3E-05	1.8E-05
Naphthalene	2.9E-07	1.2E-07	5.1E-07	2.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	4.6E-07	2.0E-07	1.6E-05	6.6E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	6.8E-07	2.8E-07	1.7E-05	7.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES													
4,4'-DDD	3.2E-08	1.3E-08	5.7E-09	2.3E-09	No	2.40E-01	B2	Liver tumor	Oral,IRIS	7.6E-09	3.1E-09	1.4E-09	5.6E-10
4,4'-DDE	3.6E-08	1.5E-08	1.5E-07	6.1E-08	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.2E-08	5.1E-09	5.0E-08	2.1E-08
4,4'-DDT	7.4E-08	3.0E-08	5.1E-07	2.1E-07	No	3.40E-01	B2	Liver tumor	Diet/IRIS	2.5E-08	1.0E-08	1.7E-07	7.2E-08
PCB's													
Aroclor-1260	3.1E-07	1.3E-07	3.1E-07	1.3E-07	No	7.70E+00	B2	Liver	Diet/IRIS,HEAST	2.4E-06	9.9E-07	2.4E-06	9.8E-07

TABLE B.4-10
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX	TOTAL PATHWAY RISK	
														2.2E-05	CHILD-MEAN
														2.3E-05	ADULT-MEAN
														1.8E-05	CHILD-MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS														1.9E-05	ADULT-MAX
VOLATILES															
1,1-Dichloroethene	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	NA	C	Mammary gland, liver	IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,1-Trichloroethane	1.5E-05	7.0E+00	1.1E-05	1.1E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2-Trichloroethane	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	8.4E-07	8.7E-07	6.1E-07	6.3E-07		
1,1,2,2-Tetrachloroethane	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2.9E-06	3.0E-06	2.1E-06	2.2E-06		
1,2-Dichloroethane	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	1.3E-06	1.4E-06	9.7E-07	1.0E-06		
1,2-Dichloropropane	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,3-Dichloropropene (cis)	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	1.30E-01	B2	Lung	Inhalation/HEAST	1.9E-06	2.0E-06	1.4E-06	1.4E-06		
1,3-Dichloropropene (trans)	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	1.30E-01	B2	Lung	Inhalation/HEAST	1.9E-06	2.0E-06	1.4E-06	1.4E-06		
2-Butanone	2.6E-05	2.6E-05	2.1E-05	2.2E-05	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
2-Hexanone	2.6E-05	2.6E-05	2.1E-05	2.2E-05	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
4-Methyl-2-Pentanone	2.9E-05	3.0E-05	2.1E-05	2.2E-05	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Acetone	2.6E-05	2.7E-05	2.1E-05	2.2E-05	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	1.9E-05	2.0E-05	1.0E-04	1.1E-04	No	2.90E-02	A	Leukemia	Occupational/IRIS	5.5E-07	5.7E-07	3.0E-06	3.1E-06		
Bromodichloromethane	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Bromoform	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	3.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	5.7E-08	5.9E-08	4.1E-08	4.3E-08		
Carbon Tetrachloride	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	1.30E-01	B2	Liver	Gavage/HEAST	1.9E-06	2.0E-06	1.4E-06	1.4E-06		
Chlorobenzene	1.8E-05	1.9E-05	1.7E-04	1.7E-04	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	8.10E-02	B2	Liver	IRIS	1.2E-06	1.2E-06	8.6E-07	8.9E-07		
Chloromethane	2.9E-05	3.0E-05	2.1E-05	2.2E-05	No	6.00E-03	C	Kidney	Inhalation/HEAST	1.8E-07	1.8E-07	1.3E-07	1.3E-07		
Dibromochloromethane	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Ethylbenzene	1.6E-05	1.7E-05	9.4E-05	9.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E-03	B2	Lung, liver	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	1.80E-03	B2	Leukemia	HEAST	2.6E-06	2.7E-06	1.9E-06	2.0E-06		
Tetrachloroethene	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	1.80E-03	B2	Leukemia, liver	HEAST	2.6E-06	2.7E-06	1.9E-06	2.0E-06		
Toluene	1.1E-05	1.1E-05	1.3E-05	1.3E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Trichloroethene	1.5E-05	1.5E-05	1.1E-05	1.1E-05	No	1.70E-02	B2	Lung	HEAST	2.5E-07	2.6E-07	1.8E-07	1.9E-07		
Vinyl chloride	2.9E-05	3.0E-05	2.1E-05	2.2E-05	No	3.00E-01	A	Liver	Inhalation/HEAST	8.8E-06	9.1E-06	6.4E-06	6.6E-06		
Xylenes	2.0E-05	2.0E-05	2.3E-04	2.4E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

TABLE B.4-11
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX	TOTAL PATHWAY RISK
														3.0E-08 CHILD-MEAN
														3.1E-08 ADULT-MEAN
														1.0E-07 CHILD-MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST														1.1E-08 ADULT-MAX
INORGANICS														
Antimony	1.6E-10	1.7E-10	1.6E-09	1.8E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Arsenic	2.0E-10	2.1E-10	6.2E-10	6.5E-10	No	5.00E+01	A	Respiratory tract	Occupational/IRIS	9.9E-09	1.0E-08	4.1E-08	4.2E-08	
Barium	6.4E-10	6.7E-10	9.4E-09	9.7E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Beryllium	7.4E-12	7.7E-12	1.6E-11	1.9E-11	No	8.40E+00	B2	Lung	Occupational/IRIS	6.2E-11	6.5E-11	1.5E-10	1.6E-10	
Cadmium	2.0E-11	2.0E-11	1.0E-10	1.1E-10	No	6.30E+00	B1	Respiratory tract	Occupational/IRIS	1.2E-10	1.3E-10	6.6E-10	6.8E-10	
Chromium	4.4E-10	4.6E-10	1.2E-09	1.3E-09	No	4.20E+01	A	Lung	Occupational/IRIS	1.9E-08	1.9E-08	5.2E-08	5.3E-08	
Cobalt	2.6E-10	2.9E-10	5.8E-10	6.0E-10	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Copper	9.7E-10	1.0E-09	7.2E-09	7.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Lead	1.7E-09	1.7E-09	1.4E-08	1.4E-08	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Magnesium	6.9E-08	7.2E-08	1.6E-07	1.6E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Mercury	5.1E-12	5.2E-12	3.8E-11	4.0E-11	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Nickel	5.1E-10	5.3E-10	1.1E-09	1.2E-09	No	8.40E-01	A	Lung and nasal tumors	Occupational/IRIS	4.3E-10	4.5E-10	9.4E-10	9.8E-10	
Thallium	3.4E-11	3.5E-11	2.4E-10	2.5E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Vanadium	8.1E-10	8.4E-10	1.9E-09	1.9E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Zinc	3.0E-09	3.1E-09	1.9E-08	2.0E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
VOLATILES														
1,1-Dichloroethene	1.2E-13	1.2E-13	2.4E-13	2.5E-13	No	NA	C	Mammary gland, liver	IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,1,1-Trichloroethane	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,1,2-Trichloroethane	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	7.0E-15	7.2E-15	1.6E-14	1.6E-14	
1,1,2,2-Tetrachloroethane	1.4E-13	1.5E-13	2.8E-13	2.9E-13	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	2.8E-14	2.9E-14	5.6E-14	5.8E-14	
1,2-Dichloroethane	1.2E-13	1.2E-13	2.4E-13	2.5E-13	No	9.10E-02	B2	Hemangiosarcoma	Gavage/IRIS	1.1E-14	1.1E-14	2.2E-14	2.3E-14	
1,2-Dichloropropane	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,3-Dichloropropene(cis)	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	1.30E-01	B2	Lung	Inhalation/HEAST	1.6E-14	1.6E-14	3.6E-14	3.8E-14	
1,3-Dichloropropene(trans)	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	1.30E-01	B2	Lung	Inhalation/HEAST	1.6E-14	1.6E-14	3.6E-14	3.8E-14	
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
2-Hexanone	2.6E-13	2.9E-13	5.6E-13	5.8E-13	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
4-Methyl-2-Pentanone	2.6E-13	2.9E-13	5.6E-13	5.8E-13	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Acetone	3.0E-13	3.2E-13	6.6E-12	6.9E-12	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzene	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	2.90E-02	A	Leukemia	Occupational/IRIS	3.5E-15	3.7E-15	8.1E-15	8.4E-15	
Bromodichloromethane	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Bromoform	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	3.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	4.8E-16	4.9E-16	1.1E-15	1.1E-15	
Carbon Tetrachloride	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	1.30E-01	B2	Liver	Gavage/HEAST	1.6E-14	1.6E-14	3.6E-14	3.8E-14	
Chlorobenzene	1.4E-13	1.5E-13	2.8E-13	2.9E-13	No	NA	D		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chloroform	1.2E-13	1.3E-13	2.4E-13	2.5E-13	No	8.10E-02	B2	Liver	IRIS	9.9E-15	1.0E-14	2.0E-14	2.1E-14	
Chloromethane	2.3E-13	2.4E-13	4.9E-13	5.1E-13	No	6.00E-03	C	Kidney	Inhalation/HEAST	1.4E-15	1.5E-15	2.9E-15	3.0E-15	
Dibromochloromethane	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Ethylbenzene	1.4E-13	1.5E-13	2.8E-13	2.9E-13	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E-03	B2	Lung, liver	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	1.4E-13	1.5E-13	2.8E-13	2.9E-13	No	1.80E-03	B2	Leukemia	HEAST	2.6E-16	2.7E-16	5.0E-16	5.2E-16	
Tetrachloroethene	1.3E-13	1.3E-13	2.8E-13	2.9E-13	No	1.80E-03	B2	Leukemia, liver	HEAST	2.3E-16	2.3E-16	5.0E-16	5.2E-16	
Toluene	1.4E-13	1.4E-13	2.8E-13	2.9E-13	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Trichloroethene	1.2E-13	1.3E-13	2.8E-13	2.9E-13	No	1.70E-02	B2	Lung	HEAST	2.1E-15	2.1E-15	4.7E-15	4.9E-15	
Vinyl chloride	2.3E-13	2.4E-13	4.9E-13	5.1E-13	No	3.00E-01	A	Liver	Inhalation/HEAST	7.0E-14	7.3E-14	1.5E-13	1.5E-13	
Xylenes	1.4E-13	1.5E-13	2.8E-13	2.9E-13	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

TABLE B.4-11 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. SPEC. RISK-CHILD MEAN	CHEM. SPEC. RISK-ADULT MEAN	CHEM. SPEC. RISK-CHILD MAX	CHEM. SPEC. RISK-ADULT MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST													
SEMIVOLATILES													
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Liver	HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2-Methylnaphthalene	1.0E-11	1.1E-11	4.2E-11	4.3E-11	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2		IRIS/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthene	9.7E-12	1.0E-11	1.3E-11	1.3E-11	No	NA			IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	8.7E-12	9.0E-12	5.2E-11	5.4E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Anthracene	9.5E-12	9.8E-12	8.4E-11	8.7E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	1.5E-11	1.6E-11	3.4E-10	3.5E-10	No	6.10E+00	B2	Liver, lung, skin	IRIS	9.3E-11	9.7E-11	2.1E-09	2.2E-09
Benzo(a)pyrene	1.6E-11	1.6E-11	2.6E-10	2.7E-10	No	6.10E+00	B2	Stomach, respiratory tract	Inhalation/IRIS	9.6E-11	1.0E-10	1.6E-09	1.7E-09
Benzo(b)fluoranthene	1.7E-11	1.7E-11	2.2E-10	2.3E-10	No	6.10E+00	B2	Lung, thorax, skin	IRIS	1.0E-10	1.1E-10	1.4E-09	1.4E-09
Benzo(ghi)perylene	1.3E-11	1.4E-11	1.2E-10	1.2E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	1.6E-11	1.6E-11	2.4E-10	2.5E-10	No	6.10E+00	B2	Lung, thorax, skin	IRIS	9.7E-11	1.0E-10	1.4E-09	1.5E-09
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	1.8E-11	1.8E-11	3.8E-10	4.0E-10	No	6.10E+00	B2	Malignant lymphoma	IRIS	1.1E-10	1.1E-10	2.3E-09	2.4E-09
Dibenzo(a,h)anthracene	9.7E-12	1.0E-11	5.6E-11	5.8E-11	No	6.10E+00	B2	Lung, mammary	IRIS	5.9E-11	6.1E-11	3.4E-10	3.5E-10
Fluoranthene	2.3E-11	2.3E-11	5.2E-10	5.4E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	1.0E-11	1.0E-11	8.7E-11	9.0E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	1.3E-11	1.4E-11	1.2E-10	1.2E-10	No	6.10E+00	B2	Lung, skin	IRIS	8.2E-11	8.5E-11	7.0E-10	7.3E-10
Naphthalene	8.9E-12	9.2E-12	1.6E-11	1.6E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	1.5E-11	1.5E-11	4.9E-10	5.1E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	2.1E-11	2.2E-11	5.2E-10	5.4E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES													
4,4'-DDD	9.7E-13	1.0E-12	1.7E-13	1.8E-13	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDE	1.1E-12	1.1E-12	4.5E-12	4.7E-12	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4,4'-DDT	2.3E-12	2.3E-12	1.6E-11	1.6E-11	No	3.40E-01	B2	Liver	Diet/IRIS,HEAST	7.7E-13	8.0E-13	5.3E-12	5.5E-12
PCB's													
Aroclor-1260	9.6E-12	9.9E-12	9.4E-12	9.8E-12	No	NA	B2		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00

TABLE B.4-12
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD-MEAN	HAZARD QUOTIENT ADULT-MEAN	HAZARD QUOTIENT CHILD-MAX	HAZARD QUOTIENT ADULT-MAX	PATHWAY HAZARD INDEX (HI)	TOTAL EXPOSURE HI	
																2.4E+00	2.8E+00	CHILD-MEAN
																1.3E+00	1.3E+00	ADULT-MEAN
																6.2E+00	6.8E+00	CHILD-MAX
																3.4E+00	3.7E+00	ADULT-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER																		
INORGANICS																		
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-04		Longevity, blood chemistry	Water/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Arsenic	4.3E-04	2.4E-04	6.6E-04	3.6E-04	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1	1	4.3E-01	2.4E-01	6.6E-01	3.6E-01			
Barium	1.4E-02	7.6E-03	3.8E-02	2.1E-02	No	5E-02		Increased blood pressure	Water/HEAST	100	1	2.8E-01	1.5E-01	7.6E-01	4.2E-01			
Beryllium	7.4E-06	4.1E-06	8.5E-06	4.7E-06	No	5E-03		No adverse effects	Water/HEAST	100	1	1.5E-02	8.1E-03	1.7E-02	9.3E-03			
Cadmium	2.6E-04	1.4E-04	7.3E-04	4.0E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
Chromium	1.1E-03	6.9E-04	3.1E-03	1.7E-03	No	2E-02		Not defined	Water/HEAST	100	1	5.4E-02	3.0E-02	1.6E-01	8.6E-02			
Cobalt	1.9E-03	1.0E-03	2.7E-03	1.5E-03	No	NA			NA/HEAST			NA	NA	NA	NA			
Copper	7.1E-03	3.9E-03	4.9E-02	2.6E-02	No	4E-02		Local GI irritation	HEAST			1.8E-01	9.8E-02	1.2E+00	6.6E-01			
Lead	5.5E-03	3.0E-03	4.8E-02	2.6E-02	No	NA			NA/HEAST			NA	NA	NA	NA			
Magnesium	8.1E-01	4.5E-01	9.0E-01	5.0E-01	No	NA			NA/HEAST			NA	NA	NA	NA			
Mercury	1.9E-05	9.7E-06	9.0E-05	4.9E-05	No	3E-04		Kidney effects	Oral/HEAST	1000	1	6.9E-02	3.2E-02	3.0E-01	1.6E-01			
Nickel	3.8E-03	2.1E-03	6.8E-03	3.8E-03	No	NA			NA/HEAST			NA	NA	NA	NA			
Thallium	2.0E-04	1.1E-04	2.0E-04	1.1E-04	No	7E-04		Alopecia;Inc. SGOT and serum LDH levels	HEAST	300	1	2.9E-01	1.6E-01	2.9E-01	1.6E-01			
Vanadium	3.0E-03	1.7E-03	1.0E-02	5.6E-03	No	7E-03		No adverse effects	Water/HEAST	100	1	4.3E-01	2.4E-01	1.4E+00	7.9E-01			
Zinc	3.9E-02	2.1E-02	2.1E-01	1.1E-01	No	2E-01		Anemia	Therapeutic/HEAST	10	1	2.0E-01	1.1E-01	1.0E+00	5.7E-01			
VOLATILES																		
1,1-Dichloroethene	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	9E-03		Liver lesions	Water/HEAST	1000	1	3.8E-02	2.1E-02	2.8E-02	1.5E-02			
1,1,1-Trichloroethane	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	9E-01		Hepatotoxicity	HEAST	100	1	3.8E-04	2.1E-04	2.8E-04	1.5E-04			
1,1,2-Trichloroethane	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	4E-02		Clinical chemistry alterations	Water/HEAST	100	1	8.6E-03	4.7E-03	6.2E-03	3.4E-03			
1,1,2,2-Tetrachloroethane	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
1,2-Dichloroethane	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
1,2-Dichloropropane	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
1,3-Dichloropropene(cis)	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	1.1E-01	6.3E-02	8.3E-02	4.6E-02			
1,3-Dichloropropene(trans)	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	1.1E-01	6.3E-02	8.3E-02	4.6E-02			
2-Butanone	6.0E-04	3.3E-04	5.0E-04	2.7E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
2-Hexanone	6.0E-04	3.3E-04	5.0E-04	2.7E-04	No	5E-01		Fetotoxicity	HEAST	100	1	1.2E-03	6.6E-04	1.0E-03	5.5E-04			
4-Methyl-2-Pentanone	6.9E-04	3.8E-04	5.0E-04	2.7E-04	No	8E-01		Liver and kidney effects	Gavage/HEAST	100	1	1.4E-03	7.8E-04	1.0E-03	5.5E-04			
Acetone	6.1E-04	3.4E-04	5.0E-04	2.7E-04	No	1E+00		Nephrotoxicity;liver and kidney effects	Gavage/HEAST	100	1	6.1E-04	3.4E-04	5.0E-04	2.7E-04			
Benzene	4.5E-04	2.5E-04	2.4E-03	1.3E-03	No	NA			NA/HEAST			NA	NA	NA	NA			
Bromodichloromethane	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000	1	1.7E-02	9.5E-03	1.2E-02	6.8E-03			
Bromoform	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	2E-01		Liver effects	Gavage/HEAST	100	1	1.7E-03	9.5E-04	1.2E-03	6.8E-04			
Carbon Tetrachloride	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	7E-03		Liver lesions	HEAST	100	1	4.8E-02	2.7E-02	3.6E-02	2.0E-02			
Chlorobenzene	4.3E-04	2.4E-04	3.9E-03	2.2E-03	No	2E-01		Liver and kidney effects	Oral/HEAST	100	1	2.2E-03	1.2E-03	2.0E-02	1.1E-02			
Chloroform	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
Chloromethane	6.9E-04	3.8E-04	5.0E-04	2.7E-04	No	1E-02		Liver lesions	HEAST	1000	1	6.9E-02	3.8E-02	5.0E-02	2.7E-02			
Dibromochloromethane	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	2E-01		Liver lesions	Gavage/HEAST	100	1	1.7E-03	9.5E-04	1.2E-03	6.8E-04			
Ethylbenzene	3.9E-04	2.1E-04	2.2E-03	1.2E-03	No	1E+00		Hepatotoxicity, nephrotoxicity	Oral/HEAST	100	1	3.9E-04	2.1E-04	2.2E-03	1.2E-03			
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-02		Liver toxicity	Water/HEAST	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Styrene	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	2E+00		RBC and liver effects	Gavage/HEAST	100	1	1.7E-04	9.5E-05	1.2E-04	6.8E-05			
Tetrachloroethene	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	1E-01		Hepatotoxicity	Gavage/HEAST	100	1	3.4E-03	1.9E-03	2.5E-03	1.4E-03			
Toluene	2.6E-04	1.4E-04	3.0E-04	1.6E-04	No	2E+00		Liver and kidney weight	HEAST	100	1	1.3E-04	7.1E-05	1.5E-04	8.2E-05			
Trichloroethene	3.4E-04	1.9E-04	2.5E-04	1.4E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
Vinyl chloride	6.9E-04	3.8E-04	5.0E-04	2.7E-04	No	NA			NA/HEAST			NA	NA	NA	NA			
Xylenes	4.8E-04	2.5E-04	5.5E-03	3.0E-03	No	4E+00		No adverse effects	HEAST	100	1	1.2E-04	6.4E-05	1.4E-03	7.5E-04			

TABLE B.4 – 12 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI–CHILD MEAN (mg/kg/day)	CDI–ADULT MEAN (mg/kg/day)	CDI–CHILD MAX (mg/kg/day)	CDI–ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD–MEAN	HAZARD QUOTIENT ADULT–MEAN	HAZARD QUOTIENT CHILD–MAX	HAZARD QUOTIENT ADULT–MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER															
SEMIVOLATILES															
1,3–Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
1,4–Dichlorobenzene	7.5E–04	4.1E–04	7.0E–04	3.8E–04	No	NA			NA/HEAST			NA	NA	NA	NA
2–Methylnaphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			NA	NA	NA	NA
2,4–Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E–03		Cataract	Therapeutic/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3–Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
3,3'–Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
Acenaphthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E–01		Hepatotoxicity	Gavage/HEAST	300	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acenaphthylene	7.8E–04	4.3E–04	8.5E–04	4.7E–04	No	4E–03			NA/HEAST			2.0E–01	1.1E–01	2.1E–01	1.2E–01
Anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E+00		No adverse effects	Gavage/HEAST	300	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(a)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(b)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E–02		Increased liver weight	Diet/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–01		Neuropathy, liver and blood changes	Gavage/HEAST	300	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluorene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–01		Hematological changes	Gavage/HEAST	300	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Naphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03		Decreased body weight gain	Gavage/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Phenanthrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E–03			NA/HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E–01		Renal effects	Gavage/HEAST	300	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PESTICIDES															
4,4'–DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
4,4'–DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
4,4'–DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E–04		Liver lesions	Diet/HEAST	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PCB's															
Aroclor–1260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA

TABLE B.4-13
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD-MEAN	HAZARD QUOTIENT ADULT-MEAN	HAZARD QUOTIENT CHILD-MAX	HAZARD QUOTIENT ADULT-MAX	PATHWAY HAZARD INDEX (HI)
																4.0E-04 CHILD-MEAN
																8.3E-06 ADULT-MEAN
																5.8E-03 CHILD-MAX
																1.2E-03 ADULT-MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																
VOLATILES																
1,1-Dichloroethene	1.1E-09	2.3E-10	2.3E-09	4.8E-10	No	9E-03		Hepatic lesions	Water/HEAST	1000	1	1.2E-07	2.6E-08	2.6E-07	5.3E-08	
1,1,1-Trichloroethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	9E-01		Hepatotoxicity	HEAST	100	1	1.3E-09	2.7E-10	2.9E-09	6.1E-10	
1,1,2-Trichloroethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	4E-02		Clinical serum chemistry	Water/HEAST	100	1	2.9E-08	6.0E-09	6.6E-08	1.4E-08	
1,1,2,2-Tetrachloroethane	1.3E-09	2.8E-10	2.8E-09	5.5E-10	No	NA			NA/HEAST			NA	NA	NA	NA	
1,2-Dichloroethane	1.1E-09	2.3E-10	2.3E-09	4.8E-10	No	NA			NA/HEAST			NA	NA	NA	NA	
1,2-Dichloropropane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	NA			NA/HEAST			NA	NA	NA	NA	
1,3-Dichloropropene(cis)	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	3.9E-07	8.0E-08	8.6E-07	1.8E-07	
1,3-Dichloropropene(trans)	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	3.9E-07	8.0E-08	8.6E-07	1.8E-07	
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA	
2-Hexanone	2.7E-09	5.6E-10	5.3E-09	1.1E-09	No	5E-01		Fetotoxicity	HEAST	100		5.4E-09	1.1E-09	1.1E-08	2.2E-09	
4-Methyl-2-Pentanone	2.7E-09	5.6E-10	5.3E-09	1.1E-09	No	5E-01		Liver and kidney effects	Gavage/HEAST	100	1	5.4E-09	1.1E-09	1.1E-08	2.2E-09	
Acetone	2.9E-09	6.0E-10	5.3E-08	1.3E-08	No	1E+00		Increased liver,kidney weights	Gavage/HEAST	100	1	2.9E-09	6.0E-10	5.3E-08	1.3E-08	
Benzene	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	NA			NA/HEAST			NA	NA	NA	NA	
Bromodichloromethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000	1	5.8E-08	1.2E-08	1.3E-07	2.7E-08	
Bromoform	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	2E-01		Hepatic lesions	Gavage/HEAST	100	1	5.8E-09	1.2E-09	1.3E-08	2.7E-09	
Carbon Tetrachloride	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	7E-03		Liver lesions	HEAST	100	1	1.7E-07	3.4E-08	3.8E-07	7.8E-08	
Chlorobenzene	1.3E-09	2.8E-10	2.6E-09	5.5E-10	No	2E-01		Liver and kidney effects	Oral/HEAST	100	1	6.7E-09	1.4E-09	1.3E-08	2.7E-09	
Chloroform	1.2E-09	2.4E-10	2.3E-09	4.8E-10	No	NA			NA/HEAST		1	NA	NA	NA	NA	
Chloromethane	2.2E-09	4.6E-10	4.6E-09	9.6E-10	No	1E-02		Liver lesions	HEAST	1000		2.2E-07	4.6E-08	4.6E-07	9.6E-08	
Dibromochloromethane	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	2E-01		Hepatic lesions	Gavage/HEAST	100	1	5.8E-09	1.2E-09	1.3E-08	2.7E-09	
Ethylbenzene	1.3E-09	2.8E-10	2.6E-09	5.5E-10	No	1E+00		Liver and kidney toxicity	Oral/HEAST	100	1	1.3E-09	2.8E-10	2.6E-09	5.5E-10	
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-02		Liver toxicity	Water/HEAST	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	1.3E-09	2.8E-10	2.6E-09	5.5E-10	No	2E+00		RBC and liver effects	Gavage/HEAST	100	1	6.7E-10	1.4E-10	1.3E-09	2.7E-10	
Tetrachloroethene	1.2E-09	2.5E-10	2.6E-09	5.5E-10	No	1E-01		Hepatotoxicity	Gavage/HEAST	100	1	1.2E-08	2.5E-09	2.6E-08	5.5E-09	
Toluene	1.3E-09	2.7E-10	2.6E-09	5.5E-10	No	2E+00		Liver and kidney weights	HEAST	100	1	6.5E-10	1.3E-10	1.3E-09	2.7E-10	
Trichloroethene	1.2E-09	2.4E-10	2.6E-09	5.5E-10	No	NA			NA/HEAST			NA	NA	NA	NA	
Vinyl chloride	2.2E-09	4.6E-10	4.6E-09	9.6E-10	No	NA			NA/HEAST			NA	NA	NA	NA	
Xylenes	1.3E-09	2.8E-10	2.6E-09	5.5E-10	No	4E+00		No adverse effects	HEAST	100	1	3.4E-10	7.0E-11	6.6E-10	1.4E-10	
SEMIVOLATILES																
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA	
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA	
2-Methylnaphthalene	9.7E-08	2.0E-08	4.0E-07	8.2E-08	No	4E-03			NA/HEAST			NA	NA	NA	NA	
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-03		Cataract formation	Theraprutic/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA	
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA	
Acenaphthene	9.2E-08	1.9E-08	1.2E-07	2.5E-08	No	6E-01		Hepatotoxicity	Gavage/HEAST	300	1	1.5E-07	3.2E-08	2.0E-07	4.2E-08	
Acenaphthylene	8.2E-08	1.7E-08	5.0E-07	1.0E-07	No	4E-03			NA/HEAST			2.1E-05	4.3E-06	1.2E-04	2.6E-05	
Anthracene	9.0E-08	1.9E-08	7.9E-07	1.6E-07	No	3E+00		No adverse effects	Gavage/HEAST	300	1	3.0E-08	6.2E-09	2.6E-07	5.5E-08	
Benzo(a)anthracene	1.4E-07	3.0E-08	3.2E-06	6.7E-07	No	4E-03			NA/HEAST			3.6E-05	7.5E-06	8.1E-04	1.7E-04	
Benzo(a)pyrene	1.5E-07	3.1E-08	2.5E-06	5.1E-07	No	4E-03			NA/HEAST			3.7E-05	7.8E-06	6.2E-04	1.3E-04	
Benzo(b)fluoranthene	1.6E-07	3.3E-08	2.1E-06	4.4E-07	No	4E-03			NA/HEAST			3.9E-05	8.2E-06	5.3E-04	1.1E-04	
Benzo(ghi)perylene	1.3E-07	2.6E-08	1.1E-06	2.3E-07	No	4E-03			NA/HEAST			3.2E-05	6.6E-06	2.8E-04	5.8E-05	
Benzo(k)fluoranthene	1.5E-07	3.1E-08	2.2E-06	4.7E-07	No	4E-03			NA/HEAST			3.8E-05	7.8E-06	5.6E-04	1.2E-04	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02		Increased liver weight	Diet/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chrysene	1.7E-07	3.5E-08	3.6E-06	7.5E-07	No	4E-03			NA/HEAST			4.2E-05	8.6E-06	9.1E-04	1.9E-04	
Dibenzo(a,h)anthracene	9.2E-08	1.9E-08	5.3E-07	1.1E-07	No	4E-03			NA/HEAST			2.3E-05	4.8E-06	1.3E-04	2.7E-05	
Fluoranthene	2.1E-07	4.4E-08	5.0E-06	1.0E-06	No	4E-01		Neuropathy,liver,blood	Gavage/HEAST	300	1	5.3E-07	1.1E-07	1.2E-05	2.6E-06	
Fluorene	9.4E-08	2.0E-08	8.3E-07	1.7E-07	No	4E-01		Neuorpathy,liver,blood	Gavage/HEAST	300	1	2.4E-07	4.9E-08	2.1E-06	4.3E-07	
Indeno(123cd)pyrene	1.3E-07	2.6E-08	1.1E-06	2.3E-07	No	4E-03			NA/HEAST			3.2E-05	6.6E-06	2.7E-04	5.7E-05	
Naphthalene	8.4E-08	1.7E-08	1.5E-07	3.1E-08	No	4E-03		Dec. body weight gain	Gavage/HEAST	1000	1	2.1E-05	4.3E-06	3.7E-05	7.7E-06	
Phenanthrene	1.4E-07	2.9E-08	4.6E-06	9.6E-07	No	4E-03			NA/HEAST			3.5E-05	7.2E-06	1.2E-03	2.4E-04	
Pyrene	2.0E-07	4.1E-08	5.0E-06	1.0E-06	No	3E-01		Kidney effects	Gavage/HEAST	300	1	6.6E-07	1.4E-07	1.7E-05	3.4E-06	
PESTICIDES																
4,4'-DDD	9.2E-09	1.9E-09	1.7E-09	3.4E-10	No	NA			NA/HEAST			NA	NA	NA	NA	
4,4'-DDE	1.0E-08	2.2E-09	4.3E-08	8.9E-09	No	NA			NA/HEAST			NA	NA	NA	NA	
4,4'-DDT	2.1E-08	4.4E-09	1.5E-07	3.1E-08	No	5E-04		Liver lesions	Diet/HEAST	100	1	4.3E-05	8.9E-06	3.0E-04	6.2E-05	
PCB's																
Aroclor-1260	9.1E-08	1.9E-08	8.9E-08	1.8E-08	No	NA			NA/HEAST			NA	NA	NA	NA	

TABLE B.4-14
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD-MEAN	HAZARD QUOTIENT ADULT-MEAN	HAZARD QUOTIENT CHILD-MAX	HAZARD QUOTIENT ADULT-MAX	PATHWAY HAZARD INDEX (HI)
																3.3E-01 CHILD-MEAN
																3.4E-02 ADULT-MEAN
																2.5E+00 CHILD-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST																2.6E-01 ADULT-MAX
INORGANICS																
Antimony	6.1E-05	6.4E-06	6.7E-04	6.9E-05	No	4E-04		Longevity, blood chemistry	Water/HEAST	1000	1	1.5E-01	1.6E-02	1.7E+00	1.7E-01	
Arsenic	7.5E-05	7.8E-06	3.1E-04	3.2E-05	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1	1	7.5E-02	7.8E-03	3.1E-01	3.2E-02	
Barium	2.4E-04	2.5E-05	3.6E-03	3.7E-04	No	5E-02		Increased blood pressure	Water/HEAST	100	1	4.9E-03	5.1E-04	7.1E-02	7.4E-03	
Beryllium	2.8E-06	2.9E-07	6.9E-06	7.1E-07	No	5E-03		No adverse effects	Water/HEAST	100	1	5.6E-04	5.8E-05	1.4E-03	1.4E-04	
Cadmium	7.5E-06	7.7E-07	4.0E-05	4.1E-06	No	NA			NA/HEAST			NA	NA	NA	NA	
Chromium	1.7E-04	1.7E-05	4.7E-04	4.8E-05	No	2E-02		Not defined	Water/HEAST	100	1	8.4E-03	8.7E-04	2.3E-02	2.4E-03	
Cobalt	1.1E-04	1.1E-05	2.2E-04	2.3E-05	No	NA			NA/HEAST			NA	NA	NA	NA	
Copper	3.7E-04	3.8E-05	2.7E-03	2.8E-04	No	4E-02		Local GI irritation	HEAST			9.1E-03	9.5E-04	6.8E-02	7.1E-03	
Lead	3.2E-04	2.0E-05	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA	
Magnesium	2.6E-02	2.7E-03	6.0E-02	6.2E-03	No	NA			NA/HEAST			NA	NA	NA	NA	
Mercury	1.9E-06	2.0E-07	1.5E-05	1.5E-06	No	3E-04		Kidney effects	Oral/HEAST	1000	1	6.4E-03	6.6E-04	4.8E-02	5.0E-03	
Nickel	1.9E-04	2.0E-05	4.3E-04	4.4E-05	No	NA			NA/HEAST			NA	NA	NA	NA	
Thallium	1.3E-05	1.3E-06	9.3E-05	9.6E-06	No	7E-04		Alopecia;inc. SGOT and serum LDH levels	HEAST	300	1	1.6E-02	1.9E-03	1.3E-01	1.4E-02	
Vanadium	3.1E-04	3.2E-05	7.1E-04	7.4E-05	No	7E-03		No adverse effects	Water/HEAST	100	1	4.4E-02	4.6E-03	1.0E-01	1.1E-02	
Zinc	1.1E-03	1.2E-04	7.2E-03	7.5E-04	No	2E-01		Anemia	Therapeutic/HEAST	10	1	5.6E-03	5.8E-04	3.6E-02	3.7E-03	
VOLATILES																
1,1-Dichloroethene	4.4E-08	4.6E-09	9.3E-08	9.6E-09	No	9E-03		Liver lesions	Water/HEAST	1000	1	4.9E-06	5.1E-07	1.0E-05	1.1E-06	
1,1,1-Trichloroethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	9E-01		Hepatotoxicity	HEAST	100	1	5.1E-06	5.3E-07	1.2E-05	1.2E-06	
1,1,2-Trichloroethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	4E-02		Clinical chemistry alterations	Water/HEAST	100	1	1.2E-06	1.2E-07	2.6E-06	2.7E-07	
1,1,2,2-Tetrachloroethane	5.4E-08	5.6E-09	1.1E-07	1.1E-08	No	NA			NA/HEAST			NA	NA	NA	NA	
1,2-Dichloroethane	4.4E-08	4.6E-09	9.3E-08	9.6E-09	No	NA			NA/HEAST			NA	NA	NA	NA	
1,2-Dichloropropane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	NA			NA/HEAST			NA	NA	NA	NA	
1,3-Dichloropropene(cis)	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	1.5E-05	1.6E-06	3.5E-05	3.7E-06	
1,3-Dichloropropene(trans)	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	3E-03		Increased kidney weight	Diet/HEAST	1000	1	1.5E-05	1.6E-06	3.5E-05	3.7E-06	
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA	
2-Hexanone	1.1E-07	1.1E-08	2.1E-07	2.2E-08	No	5E-01		Fetotoxicity	HEAST	100	1	2.1E-07	2.2E-08	4.2E-07	4.4E-08	
4-Methyl-2-Pentanone	1.1E-07	1.1E-08	2.1E-07	2.2E-08	No	5E-01		Liver and kidney effects	Gavage/HEAST	100	1	2.1E-07	2.2E-08	4.2E-07	4.4E-08	
Acetone	1.2E-07	1.2E-08	2.6E-06	2.6E-07	No	1E+00		Nephrotoxicity;liver and kidney effects	Gavage/HEAST	100	1	1.2E-07	1.2E-08	2.5E-06	2.6E-07	
Benzene	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	NA			NA/HEAST			NA	NA	NA	NA	
Bromodichloromethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000	1	2.3E-06	2.4E-07	5.3E-06	5.5E-07	
Bromoform	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	2E-01		Liver effects	Gavage/HEAST	100	1	2.3E-07	2.4E-08	5.3E-07	5.5E-08	
Carbon Tetrachloride	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	7E-03		Liver lesions	HEAST	100	1	6.6E-06	6.8E-07	1.5E-05	1.6E-06	
Chlorobenzene	5.4E-08	5.6E-09	1.1E-07	1.1E-08	No	2E-01		Liver and kidney effects	Oral/HEAST	100	1	2.7E-07	2.8E-08	5.3E-07	5.5E-08	
Chloroform	4.6E-08	4.8E-09	9.3E-08	9.6E-09	No	NA			NA/HEAST			NA	NA	NA	NA	
Chloromethane	8.9E-08	9.2E-09	1.9E-07	1.9E-08	No	1E-02		Liver lesions	HEAST	1000	1	8.9E-06	9.2E-07	1.9E-05	1.9E-06	
Dibromochloromethane	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	2E-01		Liver lesions	Gavage/HEAST	100	1	2.3E-07	2.4E-08	5.3E-07	5.5E-08	
Ethylbenzene	5.4E-08	5.6E-09	1.1E-07	1.1E-08	No	1E+00		Hepatotoxicity, nephrotoxicity	Oral/HEAST	100	1	5.4E-06	5.6E-07	1.1E-05	1.1E-06	
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-02		Liver toxicity	Water/HEAST	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	5.4E-08	5.6E-09	1.1E-07	1.1E-08	No	2E+00		RBC and liver effects	Gavage/HEAST	100	1	2.7E-06	2.8E-07	5.3E-06	5.5E-07	
Tetrachloroethene	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	1E-01		Hepatotoxicity	Gavage/HEAST	100	1	4.6E-07	4.8E-08	1.1E-06	1.1E-07	
Toluene	5.2E-08	5.4E-09	1.1E-07	1.1E-08	No	2E+00		Liver and kidney weight	HEAST	100	1	2.6E-06	2.7E-07	5.3E-06	5.5E-07	
Trichloroethene	4.6E-08	4.8E-09	1.1E-07	1.1E-08	No	NA			NA/HEAST			NA	NA	NA	NA	
Vinyl chloride	8.9E-08	9.2E-09	1.9E-07	1.9E-08	No	NA			NA/HEAST			NA	NA	NA	NA	
Xylenes	5.4E-08	5.6E-09	1.1E-07	1.1E-08	No	4E+00		No adverse effects	HEAST	100	1	1.3E-06	1.4E-07	2.6E-06	2.7E-07	

TABLE B.4-14 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT CHILD-MEAN	HAZARD QUOTIENT ADULT-MEAN	HAZARD QUOTIENT CHILD-MAX	HAZARD QUOTIENT ADULT-MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST															
SEMIVOLATILES															
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
2-Methylnaphthalene	3.9E-06	4.0E-07	1.6E-05	1.6E-06	No	4E-03			NA/HEAST			NA	NA	NA	NA
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-03		Cataract	Therapeutic/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
Acenaphthene	3.7E-06	3.8E-07	4.9E-06	5.1E-07	No	6E-01		Hepatotoxicity	Gavage/HEAST	300	1	6.1E-06	6.3E-07	8.2E-06	8.4E-07
Acenaphthylene	3.3E-06	3.4E-07	2.0E-05	2.1E-06	No	4E-03			NA/HEAST			8.2E-04	8.5E-05	5.0E-03	5.1E-04
Anthracene	3.8E-06	3.7E-07	3.2E-05	3.3E-06	No	3E+00		No adverse effects	Gavage/HEAST	300	1	1.2E-06	1.2E-07	1.1E-05	1.1E-06
Benzo(a)anthracene	5.8E-06	6.0E-07	1.3E-04	1.3E-05	No	4E-03			NA/HEAST			1.4E-03	1.5E-04	3.2E-02	3.4E-03
Benzo(a)pyrene	6.0E-06	6.2E-07	9.9E-05	1.0E-05	No	4E-03			NA/HEAST			1.5E-03	1.6E-04	2.5E-02	2.6E-03
Benzo(b)fluoranthene	6.3E-06	6.5E-07	8.5E-05	8.8E-06	No	4E-03			NA/HEAST			1.6E-03	1.6E-04	2.1E-02	2.2E-03
Benzo(ghi)perylene	5.1E-06	5.3E-07	4.5E-05	4.7E-06	No	4E-03			NA/HEAST			1.3E-03	1.3E-04	1.1E-02	1.2E-03
Benzo(k)fluoranthene	6.0E-06	6.2E-07	9.0E-05	9.3E-06	No	4E-03			NA/HEAST			1.5E-03	1.6E-04	2.2E-02	2.3E-03
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02		Increased liver weight	Diet/HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	6.7E-06	6.9E-07	1.5E-04	1.5E-05	No	4E-03			NA/HEAST			1.7E-03	1.7E-04	3.6E-02	3.8E-03
Dibenzo(a,h)anthracene	3.7E-06	3.8E-07	2.1E-05	2.2E-06	No	4E-03			NA/HEAST			9.2E-04	9.5E-05	5.3E-03	5.5E-04
Fluoranthene	8.6E-06	8.9E-07	2.0E-04	2.1E-05	No	4E-01		Neuropathy, liver and blood changes	Gavage/HEAST	300	1	2.1E-05	2.2E-06	5.0E-04	5.1E-05
Fluorene	3.8E-06	3.9E-07	3.3E-05	3.4E-06	No	4E-01		Hematological changes	Gavage/HEAST	300	1	9.4E-06	9.8E-07	8.3E-05	8.6E-06
Indeno(123cd)pyrene	5.1E-06	5.3E-07	4.4E-05	4.5E-06	No	4E-03			NA/HEAST			1.3E-03	1.3E-04	1.1E-02	1.1E-03
Naphthalene	3.4E-06	3.5E-07	6.0E-06	6.2E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	1000	1	8.4E-04	8.7E-05	1.5E-03	1.5E-04
Phenanthrene	5.6E-06	5.8E-07	1.9E-04	1.9E-05	No	4E-03			NA/HEAST			1.4E-03	1.4E-04	4.6E-02	4.8E-03
Pyrene	8.0E-06	8.2E-07	2.0E-04	2.1E-05	No	3E-01		Renal effects	Gavage/HEAST	300	1	2.7E-05	2.7E-06	6.6E-04	6.8E-05
PESTICIDES															
4,4'-DDD	3.7E-07	3.8E-08	6.6E-08	6.8E-09	No	NA			NA/HEAST			NA	NA	NA	NA
4,4'-DDE	4.2E-07	4.3E-08	1.7E-06	1.8E-07	No	NA			NA/HEAST			NA	NA	NA	NA
4,4'-DDT	8.6E-07	8.9E-08	6.0E-06	6.2E-07	No	5E-04		Liver lesions	Diet/HEAST	100	1	1.7E-03	1.8E-04	1.2E-02	1.2E-03
PCB's															
Aroclor-1260	3.6E-06	3.8E-07	3.6E-06	3.7E-07	No	NA			NA/HEAST			NA	NA	NA	NA

TABLE B.4-15
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD-MEAN	HAZARD QUOTIENT ADULT-MEAN	HAZARD QUOTIENT CHILD-MAX	HAZARD QUOTIENT ADULT-MAX	PATHWAY HAZARD INDEX (HI)	
																7.0E-02	CHILD-MEAI
																1.4E-02	ADULT-MEA
																1.2E-01	CHILD-MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS																2.5E-02	ADULT-MAX
VOLATILES																	
1,1-Dichloroethene	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
1,1,1-Trichloroethane	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	3E+00		Hepatotoxicity	HEAST	100	1	5.9E-05	1.2E-05	4.3E-05	8.9E-06		
1,1,2-Trichloroethane	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
1,2-Dichloroethane	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
1,2-Dichloropropane	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
1,3-Dichloropropene (cis)	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	3.0E-02	6.2E-03	2.2E-02	4.5E-03		
1,3-Dichloropropene (trans)	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	3.0E-02	6.2E-03	2.2E-02	4.5E-03		
2-Butanone	3.1E-04	6.4E-05	2.6E-04	5.4E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
2-Hexanone	3.1E-04	6.4E-05	2.6E-04	5.4E-05	No	9E-01		CNS	HEAST	100	1	3.5E-04	7.1E-05	2.9E-04	6.0E-05		
4-Methyl-2-Pentanone	3.6E-04	7.4E-05	2.6E-04	5.4E-05	No	2E-01		Liver and kidney effects	HEAST	100	1	1.8E-03	3.7E-04	1.3E-03	2.7E-04		
Acetone	2.3E-04	4.8E-05	2.6E-04	5.4E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Benzene	1.8E-04	3.7E-05	1.3E-03	2.6E-04	No	NA			NA/HEAST			NA	NA	NA	NA		
Bromodichloromethane	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Bromoform	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Carbon Tetrachloride	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Chlorobenzene	2.2E-04	4.7E-05	2.0E-03	4.2E-04	No	5E-02		Liver and kidney effects	HEAST	1000	1	4.5E-03	9.3E-04	4.1E-02	8.5E-03		
Chloroform	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Chloromethane	3.6E-04	7.4E-05	2.6E-04	5.4E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Dibromochloromethane	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Ethylbenzene	2.0E-04	4.1E-05	1.1E-03	2.4E-04	No	1E-01		Developmental toxicity	HEAST	300	1	6.7E-04	1.4E-04	3.8E-03	7.9E-04		
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9E-01			HEAST	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Tetrachloroethene	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Toluene	1.3E-04	2.6E-05	1.6E-04	3.2E-05	No	6E-01		CNS effects, eyes and nose irritation	HEAST	100	1	2.2E-04	4.6E-05	2.6E-04	5.4E-05		
Trichloroethene	1.8E-04	3.7E-05	1.3E-04	2.7E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Vinyl chloride	3.6E-04	7.4E-05	2.6E-04	5.4E-05	No	NA			NA/HEAST			NA	NA	NA	NA		
Xylenes	2.4E-04	5.0E-05	2.8E-03	5.9E-04	No	9E-02		CNS effects, eyes and nose irritation	HEAST	100	1	2.7E-03	5.5E-04	3.2E-02	6.5E-03		

TABLE B.4-16
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY/ ADJUSTMENT	MODIFYING FACTORS	HAZARD QUOTIENT CHILD-MEAN	HAZARD QUOTIENT ADULT-MEAN	HAZARD QUOTIENT CHILD-MAX	HAZARD QUOTIENT ADULT-MAX	PATHWAY HAZARD INDEX (HI)
																2.3E-06 CHILD-MEAN
																4.8E-06 ADULT-MEAN
																2.3E-04 CHILD-MAX
																4.7E-06 ADULT-MAX
EXPOSURE PATHWAY: OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST																
INORGANICS																
Antimony	1.9E-09	3.9E-10	2.1E-09	4.3E-09	No	4E-04						4.7E-06	9.8E-07	5.1E-06	1.1E-05	
Arsenic	2.3E-09	4.8E-10	9.5E-09	2.0E-09	No	1E-03						2.3E-06	4.8E-07	9.5E-06	2.0E-06	
Barium	7.5E-09	1.6E-09	1.1E-07	2.3E-08	No	1E-03		Fetotoxicity	HEAST	100	1	7.5E-06	1.6E-06	1.1E-04	2.3E-05	
Beryllium	8.7E-11	1.8E-11	2.1E-10	4.4E-11	No	5E-03						1.7E-08	3.6E-09	4.2E-08	8.8E-09	
Cadmium	2.3E-10	4.8E-11	1.2E-09	2.5E-10	No	1E-03						2.3E-07	4.8E-08	1.2E-06	2.5E-07	
Chromium	5.1E-09	1.1E-09	1.4E-08	3.0E-09	No	7E-02		Nasal mucosa atrophy	HEAST	30	1	7.3E-06	1.5E-06	2.0E-07	4.2E-08	
Cobalt	3.3E-09	6.9E-10	6.9E-09	1.4E-09	No	NA			NA/HEAST							
Copper	1.1E-08	2.3E-09	8.4E-08	1.7E-08	No	NA			NA/HEAST							
Lead	2.0E-08	4.1E-09	1.6E-07	3.4E-08	No	NA			NA/HEAST							
Magnesium	8.1E-07	1.7E-07	1.6E-08	3.5E-07	No	NA			NA/HEAST							
Mercury	5.9E-11	1.2E-11	4.5E-10	9.3E-11	No	9E-06		Neurotoxicity	Occupational/HEAST	30	1	6.6E-06	1.4E-06	5.0E-05	1.0E-05	
Nickel	6.0E-09	1.2E-09	1.3E-08	2.7E-09	No	NA			NA/HEAST							
Thallium	3.9E-10	8.1E-11	2.9E-09	5.9E-10	No	NA			NA/HEAST							
Vanadium	9.5E-09	2.0E-09	2.2E-08	4.5E-09	No	7E-03						1.4E-06	2.8E-07	3.1E-06	6.5E-07	
Zinc	3.5E-08	7.2E-09	2.2E-07	4.6E-08	No	2E-01						1.7E-07	3.6E-08	1.1E-06	2.3E-07	
VOLATILES																
1,1-Dichloroethene	1.4E-12	2.8E-13	2.9E-12	5.9E-13	No	NA			NA/HEAST							
1,1,1-Trichloroethane	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	3E+00		Hepatotoxicity	HEAST	100	1	4.7E-13	9.8E-14	1.1E-12	2.3E-13	
1,1,2-Trichloroethane	1.4E-12	2.8E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
1,1,2,2-Tetrachloroethane	1.7E-12	3.4E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
1,2-Dichloroethane	1.4E-12	2.8E-13	2.9E-12	5.9E-13	No	NA			NA/HEAST							
1,2-Dichloropropane	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
1,3-Dichloropropene(cis)	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	2.4E-10	4.9E-11	5.4E-10	1.1E-10	
1,3-Dichloropropene(trans)	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	2.4E-10	4.9E-11	5.4E-10	1.1E-10	
2-Butanone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST							
2-Hexanone	3.3E-12	6.9E-13	6.5E-12	1.4E-12	No	9E-01		CNS	HEAST	100	1	3.7E-12	7.6E-13	7.2E-12	1.5E-12	
4-Methyl-2-Pentanone	3.3E-12	6.9E-13	6.5E-12	1.4E-12	No	2E-01		Liver and kidney effects	HEAST	100	1	1.7E-11	3.4E-12	3.3E-11	6.8E-12	
Acetone	3.6E-12	7.4E-13	7.7E-11	1.6E-11	No	NA			NA/HEAST							
Benzene	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
Bromodichloromethane	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
Bromoform	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
Carbon Tetrachloride	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
Chlorobenzene	1.7E-12	3.4E-13	3.3E-12	6.8E-13	No	5E-02		Liver and kidney effects	HEAST	1000	1	3.3E-11	6.8E-12	6.5E-11	1.4E-11	
Chloroform	1.4E-12	2.8E-13	2.9E-12	5.8E-13	No	NA			NA/HEAST							
Chloromethane	2.7E-12	5.7E-13	5.7E-12	1.2E-12	No	NA			NA/HEAST							
Dibromochloromethane	1.4E-12	2.9E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
Ethylbenzene	1.7E-12	3.4E-13	3.3E-12	6.8E-13	No	3E-01		Developmental toxicity	HEAST	300	1	5.8E-12	1.1E-12	1.1E-11	2.3E-12	
Methylene Chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9E-01			HEAST	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	1.7E-12	3.4E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
Tetrachloroethene	1.5E-12	3.0E-13	3.3E-12	6.8E-13	No	NA			NA/HEAST							
Toluene	1.6E-12	3.3E-13	3.3E-12	6.8E-13	No	6E-01		CNS effects, eyes and nose irritation	HEAST	100	1	2.7E-12	5.5E-13	5.4E-12	1.1E-12	
Trichloroethene	1.4E-12	2.9E-13	3.3E-12	6.6E-13	No	NA			NA/HEAST							
Vinyl chloride	2.7E-12	5.7E-13	5.7E-12	1.2E-12	No	NA			NA/HEAST							
Xylenes	1.7E-12	3.4E-13	3.3E-12	6.8E-13	No	9E-02		CNS effects, eyes and nose irritation	HEAST	100	1	1.8E-11	3.8E-12	3.6E-11	7.5E-12	

TABLE B.4-16 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
MELVILLE NORTH LANDFILL

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT CHILD-MEAN	HAZARD QUOTIENT ADULT-MEAN	HAZARD QUOTIENT CHILD-MAX	HAZARD QUOTIENT ADULT-MAX
EXPOSURE PATHWAY: OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST															
SEMIVOLATILES															
1,3-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST					NA	NA
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01		Liver and kidney effects	HEAST	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2-Methylnaphthalene	1.2E-10	2.5E-11	4.9E-10	1.0E-10	No	NA			NA/HEAST					NA	NA
2,4-Dinitrophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST					NA	NA
3-Nitroaniline	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST					NA	NA
3,3'-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST					NA	NA
Acenaphthene	1.1E-10	2.3E-11	1.5E-10	3.1E-11	No	6E-01			HEAST			1.9E-10	3.9E-11	2.5E-10	5.2E-11
Acenaphthylene	1.0E-10	2.1E-11	6.1E-10	1.3E-10	No	4E-02			NA/HEAST			2.5E-09	5.2E-10	1.5E-08	3.2E-09
Anthracene	1.1E-10	2.3E-11	9.8E-10	2.0E-10	No	3E+00			HEAST			3.7E-11	7.6E-12	3.3E-10	6.9E-11
Benzo(a)anthracene	1.8E-10	3.7E-11	4.0E-09	8.3E-10	No	4E-02			NA/HEAST			4.5E-09	9.2E-10	1.0E-07	2.1E-08
Benzo(a)pyrene	1.8E-10	3.8E-11	3.1E-09	6.3E-10	No	4E-02			NA/HEAST			4.6E-09	9.5E-10	7.8E-08	1.6E-08
Benzo(b)fluoranthene	1.9E-10	4.0E-11	2.6E-09	5.4E-10	No	4E-02			NA/HEAST			4.9E-09	1.0E-09	6.5E-08	1.4E-08
Benzo(ghi)perylene	1.6E-10	3.2E-11	1.4E-09	2.9E-10	No	4E-02			NA/HEAST			3.9E-09	8.1E-10	3.5E-08	7.2E-09
Benzo(k)fluoranthene	1.8E-10	3.8E-11	2.8E-09	5.7E-10	No	4E-02			NA/HEAST			4.6E-09	9.6E-10	6.9E-08	1.4E-08
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02			HEAST			0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chrysene	2.1E-10	4.3E-11	4.5E-09	9.3E-10	No	4E-02			NA/HEAST			5.1E-09	1.1E-09	1.1E-07	2.3E-08
Dibenzo(a,h)anthracene	1.1E-10	2.3E-11	6.5E-10	1.4E-10	No	4E-02			NA/HEAST			2.8E-09	5.9E-10	1.6E-08	3.4E-09
Fluoranthene	2.6E-10	5.5E-11	6.1E-09	1.3E-09	No	4E-01			HEAST			6.6E-10	1.4E-10	1.5E-08	3.2E-09
Fluorene	1.2E-10	2.4E-11	1.0E-09	2.1E-10	No	4E-01			HEAST			2.9E-10	6.0E-11	2.5E-09	5.3E-10
Indeno(123cd)pyrene	1.6E-10	3.2E-11	1.3E-09	2.8E-10	No	4E-02			NA/HEAST			3.9E-09	8.1E-10	3.4E-08	7.0E-09
Naphthalene	1.0E-10	2.1E-11	1.8E-10	3.8E-11	No	4E-02			HEAST			2.6E-09	5.4E-10	4.6E-09	9.5E-10
Phenanthrene	1.7E-10	3.6E-11	5.7E-09	1.2E-09	No	4E-02			NA/HEAST			4.3E-09	8.9E-10	1.4E-07	3.0E-08
Pyrene	2.5E-10	5.1E-11	6.1E-09	1.3E-09	No	3E-01			HEAST			8.2E-10	1.7E-10	2.0E-08	4.2E-09
PESTICIDES															
4,4'-DDD	1.1E-11	2.3E-12	2.0E-12	4.2E-13	No	NA			NA/HEAST						NA
4,4'-DDE	1.3E-11	2.7E-12	5.3E-11	1.1E-11	No	NA			NA/HEAST						NA
4,4'-DDT	2.8E-11	5.5E-12	1.8E-10	3.8E-11	No	5E-04			HEAST			5.3E-08	1.1E-08	3.7E-07	7.6E-08
PCB's															
Aroclor-1260	1.1E-10	2.3E-11	1.1E-10	2.3E-11	No	NA			NA/HEAST						NA

APPENDIX C

RISK ASSESSMENT METHODS

OLD FIRE FIGHTING TRAINING AREA

APPENDIX C

RISK ASSESSMENT METHODS

Five different exposure scenarios were included in the risk assessment for the Old Fire Fighting Training Area site. Two scenarios involve exposures to the site as it currently exists, and three additonal scenarios involve exposures related to potential future construction and occupation of a small commercial/industrial facility and future residential use of the site. The scenarios are briefly described below. Model equations and parameter values for each exposure pathway follow.

SCENARIO 1 - Current Use - Child Care

A child care center designed to provide day care for children 1-5 years old currently exists on the site. It is assumed that the children attending the day care facility would have contact with contaminated soil. As a result, they may receive dermal and ingestion exposures to contaminants in soil. For children, parameter values for 0-6 year old children were selected, and exposure was assumed to take place over 5 years. Exposure on-site is assumed to be 8 hours/day, five days/week for fifty weeks/year.

SCENARIO 2 - Current Use - Recreational

Areas of the site are currently used for public recreation and contain a playground, pavilion and picnic area. These areas are likely to receive heavy weekend use during summer months. As a result, children receive dermal and ingestion exposures to contaminants in the soil. It is assumed that children visit this site for recreational purposes 2 days per week in the summer and more infrequently during the school year, between the ages of 6-18 years.

SCENARIO 3 - Future Use - Construction

In the future, construction workers may be involved in building an commercial/industrial facility on the site. Through excavation and site preparation activities, they could receive extensive inhalation exposure to contaminants in dust, as well as dermal and ingestion exposures to contaminants in soil. It is assumed that excavation and site preparation activities would last for a 12 month period, and that no remediation of contaminants would occur prior to construction or occupation of the commercial/industrial/residential sites (addressed below).

SCENARIO 4 - Future Use - Commercial/Industrial

Future use of the site for commercial/industrial purposes presents a potential exposure of employees to site contamination. Such exposures are most likely to include incidental ingestion and dermal exposure to contaminants in soil, and ingestion exposures to contaminants in tap water. It is assumed that employees would be on-site five days/week, fifty weeks/year, for twenty-five years.

SCENARIO 5 - FUTURE USE - Residential

Children and adults may occupy residences on the site in the future. In both cases, the relevant exposure pathways are indoor and outdoor ingestion of dust/soil, outdoor dermal exposure to soil contaminants, outdoor inhalation of contaminants in dust, indoor inhalation of volatile organic compounds emanating from tap water, and ingestion exposures to contaminants in tap water. For children, parameter values for 0-6 year old children were selected, and exposure was assumed to take place over 6 years. For adults, exposure is assumed to occur for 30 years. For both receptors, the exposure frequency is assumed to be 350 days/year.

EXPOSURE EQUATIONS

SCENARIO 1: Current Use - Child Care (Children)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR =	500 mg/day	
ABS =	Volatile Organic Compounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible
EF =	250 days/year	
ED =	5 years	
BW =	14.5 kg (children, 0-6 years old) (EPA, 1990b)	
AT =	1,825 days for non-cancer risks	
	25,550 days for cancer risks	

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)

TRC

RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 200 mg/day, which is typical for this age group
EF = 250 days/year
ED = 5 years
RAF = Volatile Organic Compounds: 1.0
Semivolatile Organic Compounds:
PAHs 1.0
PCBs 0.3
Pesticides:
High soil sorption 0.3
Low soil sorption 1.0
Inorganics
- Lead:
Children 0.5
- All others 1.0
BW = 14.5 kg (children, 0-6 years old) (EPA, 1990b)
AT = 1,825 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 2 - Current Use - Recreational (Children)

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day
EF = 33 days/year, based upon playing on site 2 days/week during the summer and 1 day/month the remainder of the year.
ED = 12 years
BW = 43.2kg (children, 6-18 years old)
AT = 4,380 days for non-cancer risks
25,550 days for cancer risks

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Coumpounds 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 33 days/year, based upon playing on site 2 days/week during the summer and 1 day/month the remainder of the year.
ED = 12 years
BW = 43.2 kg (children, 6-18 years old)
AT = 4,380 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 3: Future Use - Construction (Adults)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil down to a depth of 12 feet (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)

TRC

EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR =	500 mg/day	
ABS =	Volatile Organic Compounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible
EF =	250 days/year	
ED =	1 year	
BW =	70 kg	
AT =	365 days for non-cancer risks	
	25,550 days for cancer risks	

- Ingestion of Chemicals in Soil and Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR =	480 mg/day	
EF =	250 days/year	
ED =	1 year	
RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3
	Low soil sorption	1.0

Inorganics
- Lead:
  Adults 0.3
- All others: 1.0

BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

- Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/day)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 20 m^3/day for adults under moderate exertion
EF = 250 days/year
ED = 1 year
RAF_{ai} = 1.0
BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 4: Future Use - Commercial/Industrial (Adults)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)

ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR =	500 mg/day	
ABS =	Volatile Organic Compounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible
EF =	250 days/year	
ED =	25 years	
BW =	70 kg	
AT =	9,125 and 25,550 days for adult non-cancer and cancer risks, respectively	

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR =	50 mg/day	
EF =	250 days/year	
ED =	25 years	
RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3

Low soil sorption	1.0
Inorganics	
- Lead:	
Adults	0.3
- All others:	1.0

BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 1.0 liter/day (EPA, 1990b)
EF = 250 days/year
ED = 25 years
BW = 70 kg (EPA, 1990b)
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

SCENARIO 5: Future Use - Residential (Children and Adults)

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)

TRC

ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR =	500 mg/day	
ABS =	Volatile Organic Compounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible
EF =	350 days/year	
ED =	30 years for adults, 6 years for children	
BW =	70 kg for adults, 14.5 kg for children 0-6 years old	
AT =	2,190 and 25,550 days for children non-cancer and cancer risks, respectively	
	10,950 and 25,550 days for adult non-cancer and cancer risks, respectively	

- Ingestion of Chemicals in Soil and House Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR =	100 mg/day for adults; 200 mg/day for children ages 1-6 years	
EF =	350 days/year	
ED =	30 years for adults, 6 years for children	
RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3

	Low soil sorption	1.0
	Inorganics	
	- Lead:	
	Children	0.5
	Adults	0.3
	- All others:	1.0

BW = 70 kg for adults, 14.5 kg for children 0-6 years old

AT = 10,950 and 25,550 days for children non-cancer and cancer risks, respectively
8,760 and 25,550 days for adult non-cancer and cancer risks, respectively

- Outdoor Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/day)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

CD = Derived from fugitive dust generation (see below)
IR = 20 m^3/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF_{ai} = 1.0
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 2.0 liters/day for adult, 0.75 liters/day children (EPA, 1990b)
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old (EPA, 1990b)
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Inhalation of Airborne (Vapor Phase) Chemicals

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CA \times IR \times ET \times EF \times ED}{BW \times AT}$$

where:

CA = Contaminant Concentration in Air (mg/m^3) - derived from volatilization during showering (Andelman, 1985)
IR = Inhalation Rate (m^3/hour)
ET = Exposure Time (hours/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged -- days)

Specific Parameter Values:

IR = 0.6 m^3/hour light activity assumed (EPA, 1990b)
ET = 0.2 hours/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

EXPOSURE POINT MODELS

- Model Estimates of Fugitive Dust Generation

Emissions estimates were calculated for activities resulting in soil disturbance, such as heavy equipment operation and wind erosion, which may occur over the site during the construction scenario.

The potentially significant components of fugitive dust at this site are:

1) wind erosion of dust from surfaces without vegetative cover, and
2) dust from loading/unloading of excavated soil.

Fugitive dust from wind erosion over exposed soil and from loading/unloading activities was calculated using (EPA, AP-42, 1988). Fugitive dust generation tables showing all model inputs, are presented as Table C-1. The data are summarized in Table C-2. The models are described below.

$$E = a \cdot I \cdot K \cdot C \cdot L \cdot V \cdot A \cdot T$$

where:

E = Emission rate (kg/day)

a = Fraction of total wind losses (wind erosion of soil) that remain suspended
I = Soil erodibility
K = Soil roughness factor
C = Climatic factor
L = Field length factor
V = Vegetative cover factor
A = Area of the site
T = Time conversion factor

Most of these values are specified in USEPA (1988) for worst-case treatments. The climatic factor is read from a map and multiplied by .01 as specified. The variables a and I are determined based on site soil characteristics. The following values were used:

a = 0.01
I = 134 tons $acre^{-1}$ yr^{-1}
K = 1 (worst-case for flat terrain)
C = 0.04
L = .7
V = 1 (no vegetative cover-worst case)
A = 1 acre (Scenarios 3 and 5)
T = 1 yr/365 days

The erosion emission rate is presented in Table C-2.

TRC

The second component is due to loading/unloading of soils due to excavation activities and can be accounted for by:

$$E = \frac{k \cdot (.0016) \cdot (U/2.2)^{1.3}}{(M/2)^{1.4}}$$

and

$$E_{ed} = V \cdot D \cdot E/T$$

where:

E = Emission factor due to loading/dumping (kg/Mg)
k = Particle size multiplier
U = Mean wind speed (m/s)
M = Soil moisture (%)
E_{ed} = Emission rate due to loading/dumping (kg/day)
V = Volume of soil excavated (m^3)
D = Density of soil (Mg/m^3)
T = Time conversion factor (days of excavation)

Using conservative assumptions and appropriate guidelines (EPA, AP-42, 1988):

k = .74
U = 4.74 m/s
M = 5%
V = 917.5 m^3
D = 1.5 Mg/m^3
T = 180 days

The emissions due to loading/dumping are presented in Table C-2.

Total fugitive emissions (from wind activity and loading/dumping) are also presented in Table C-2.

The dust concentration on site is calculated by:

$$Cs = \frac{E}{w \cdot W \cdot H} \cdot C_f$$

where:

Cs = Dust concentration on site (mg/m^3)
E = Total emission rate (kg/day)
w = Wind speed = 4.74 m/s
W = Width (entire site) = 335 m
H = Breathing height = 2 m
C_f = Factors for converting from days to seconds and from kg to mg

Total fugitive dust concentrations on site are shown in Table C-2.

TRC

The concentration of contaminant suspended in air is estimated by a simple ratio of contaminant concentration in soil to fugitive dust emissions:

$$A_c = CC \cdot C_s \cdot C_f$$

where:

A_c = Concentration of suspended contaminant (mg/m^3)
CC - Contaminant concentration in soil (mg/kg)
C_s = Dust concentration on site (mg/m^3)
C_f = Conversion factor (kg/mg)

TABLE C–1
DUST EMISSION RATE
FOR FIRE FIGHTER TRAINING SCHOOL

SITE LOCATION AND SCENARIO (#)	VEGETATIVE COVER FACTOR (V')	UNSHELTERED FIELD WIDTH FACTOR (L')	CLIMATIC FACTOR (C)	SURFACE ROUGHNESS FACTOR (K)	SOIL ERODIBILITY (I) (ton/acre/year)	PORTION AS SUSPENDED PARTICULATES (a)	EMISSION FACTOR (E) (ton/acre/yr)	CONVERSION FACTOR (kg/ton)	EMISSION FACTOR (E) (kg/acre/year)	TIME CONSTANT (year/day)	AREA (acres)	WIND EROSION EMISSION RATE (kg/day)
Firefighter (3)	1	0.7	0.04	1	134	0.010	3.8E–02	907.18	3.4E+01	0.0027	1	9.19E–02
Firefighter (4)	1	0.7	0.04	1	134	0.010	3.8E–02	907.18	3.4E+01	0.0027	1	9.19E–02

LOADING & DUMPING – DUST EMISSION RATE

SITE LOCATION AND SCENARIO (#)	MOISTURE CONTENT CONSTANT	MATERIAL MOISTURE CONTENT (M) (%)	WIND SPEED CONSTANT	MEAN WIND SPEED (U) (m/s)	PARTICLE SIZE CONSTANT	PARTICLE SIZE MULTIPLIER (k)	EMISSION FACTOR (E) (kg/Mg)	TIME (days)	DENSITY OF SOIL (D) (Mg/m3)	VOLUME OF SOIL EXCAVATED (m3)	LOADING AND DUMPING EMISSION RATE (kg/day)
Firefighter (3)	2	5	2.2	4.74	1.60E–03	0.74	8.9E–04	180	1.5	917.5	6.61E–03

TABLE C-2

FUGITIVE DUST EMISSION
RATES AND AMBIENT CONCENTRATION ESTIMATES

DUST EMISSION RATE (kg/day)

	Scenario 3	Scenario 4
Wind Erosion	9.19 E-02	9.19 E-02
Loading/Unloading	6.81 E-03	NA
Total Dust Emission Rate	9.87 E-02	9.19 E-02
Dust Concentration (kg/m^3)	3.60 E-10	3.36 E-10

NA = Not Applicable

TABLE C.1-1
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX. (mg/kg/day)	ABS. DOSE CHILD CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8007.26	10600.00	1.0E-06	500	0.00	250	5	14.5	1825	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.87	5.60	1.0E-06	500	0.00	250	5	14.5	1825	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.12	8.90	1.0E-06	500	0.00	250	5	14.5	1825	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.30	28.30	1.0E-06	500	0.00	250	5	14.5	1825	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.27	0.48	1.0E-06	500	0.00	250	5	14.5	1825	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.40	0.94	1.0E-06	500	0.00	250	5	14.5	1825	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.03	18.80	1.0E-06	500	0.00	250	5	14.5	1825	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.02	20.00	1.0E-06	500	0.00	250	5	14.5	1825	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20.76	44.30	1.0E-06	500	0.00	250	5	14.5	1825	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	25.64	77.80	1.0E-06	500	0.00	250	5	14.5	1825	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	253.05	750.00	1.0E-06	500	0.00	250	5	14.5	1825	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.08	0.17	1.0E-06	500	0.00	250	5	14.5	1825	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10.88	25.60	1.0E-06	500	0.00	250	5	14.5	1825	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.25	0.53	1.0E-06	500	0.00	250	5	14.5	1825	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	53.50	142.00	1.0E-06	500	0.00	250	5	14.5	1825	25550
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Chloromethane	1.1E-07	8.0E-09	1.4E-07	1.0E-08	0.010	0.012	1.0E-06	500	0.50	250	5	14.5	1825	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Tetrachloroethene	3.3E-08	2.4E-09	2.4E-08	1.7E-09	0.0028	0.0020	1.0E-06	500	0.50	250	5	14.5	1825	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	5	14.5	1825	25550
SEMIVOLATILES														
Acenaphthene	2.3E-06	1.6E-07	1.1E-06	7.9E-08	1.91	0.940	1.0E-06	500	0.05	250	5	14.5	1825	25550
Acenaphthylene	4.5E-07	3.2E-08	6.1E-07	4.4E-08	0.38	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Anthracene	4.5E-07	3.2E-08	1.8E-06	1.3E-07	0.38	1.500	1.0E-06	500	0.05	250	5	14.5	1825	25550
Benzo(a)anthracene	4.3E-07	3.1E-08	3.9E-06	2.8E-07	0.36	3.300	1.0E-06	500	0.05	250	5	14.5	1825	25550
Benzo(a)pyrene	2.8E-06	2.0E-07	3.2E-06	2.3E-07	2.41	2.700	1.0E-06	500	0.05	250	5	14.5	1825	25550
Benzo(b)fluoranthene	5.3E-07	3.8E-08	3.3E-06	2.4E-07	0.45	2.800	1.0E-06	500	0.05	250	5	14.5	1825	25550
Benzo(ghi)perylene	4.4E-07	3.2E-08	6.1E-07	4.4E-08	0.38	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Benzo(k)fluoranthene	5.0E-07	3.6E-08	3.7E-06	2.6E-07	0.42	3.100	1.0E-06	500	0.05	250	5	14.5	1825	25550
Bis(2ethylhexyl)phthalate	4.5E-07	3.2E-08	7.0E-07	5.0E-08	0.38	0.590	1.0E-06	500	0.05	250	5	14.5	1825	25550
Butylbenzylphthalate	4.2E-07	3.0E-08	6.1E-07	4.4E-08	0.36	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Chrysene	4.5E-07	3.2E-08	3.3E-06	2.4E-07	0.38	2.800	1.0E-06	500	0.05	250	5	14.5	1825	25550
Dibenzofuran	0.0E+00	0.0E+00	7.7E-07	5.5E-08	NA	0.650	1.0E-06	500	0.05	250	5	14.5	1825	25550
Dibenzo(a,h)anthracene	4.5E-07	3.2E-08	6.1E-07	4.4E-08	0.38	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Di-n-butylphthalate	4.5E-07	3.2E-08	6.1E-07	4.4E-08	0.38	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Di-n-octylphthalate	3.9E-07	2.8E-08	6.1E-07	4.4E-08	0.33	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Fluoranthene	4.5E-07	3.2E-08	9.4E-06	6.7E-07	0.38	8.000	1.0E-06	500	0.05	250	5	14.5	1825	25550
Fluorene	5.2E-07	3.7E-08	1.4E-06	1.0E-07	0.44	1.200	1.0E-06	500	0.05	250	5	14.5	1825	25550
Indeno(123cd)pyrene	4.2E-07	3.0E-08	6.1E-07	4.4E-08	0.35	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Naphthalene	4.5E-07	3.2E-08	6.1E-07	4.4E-08	0.38	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Phenanthrene	4.5E-07	3.2E-08	8.5E-06	6.1E-07	0.38	7.200	1.0E-06	500	0.05	250	5	14.5	1825	25550
Phenol	4.5E-07	3.2E-08	6.1E-07	4.4E-08	0.38	0.520	1.0E-06	500	0.05	250	5	14.5	1825	25550
Pyrene	5.1E-07	3.6E-08	6.7E-06	4.8E-07	0.43	5.700	1.0E-06	500	0.05	250	5	14.5	1825	25550
PESTICIDES														
4,4'-DDE	6.9E-09	5.0E-10	9.6E-09	6.8E-10	0.0059	0.0081	1.0E-06	500	0.05	250	5	14.5	1825	25550
4,4'-DDT	6.0E-09	4.3E-10	1.0E-08	7.4E-10	0.0051	0.0088	1.0E-06	500	0.05	250	5	14.5	1825	25550

TABLE C.1-2
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. SOIL (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	7.6E-02	5.4E-03	1.0E-01	7.2E-03	8007.26	10600.00	200	1.0E-06	250	5	1.0	14.5	1825	25550
Antimony	2.7E-05	1.9E-06	5.3E-05	3.8E-06	2.87	5.60	200	1.0E-06	250	5	1.0	14.5	1825	25550
Arsenic	4.8E-05	3.5E-06	8.4E-05	6.0E-06	5.12	8.90	200	1.0E-06	250	5	1.0	14.5	1825	25550
Barium	1.8E-04	1.3E-05	2.7E-04	1.9E-05	19.30	28.30	200	1.0E-06	250	5	1.0	14.5	1825	25550
Beryllium	2.6E-06	1.8E-07	4.5E-06	3.2E-07	0.27	0.48	200	1.0E-06	250	5	1.0	14.5	1825	25550
Cadmium	3.8E-06	2.7E-07	6.9E-06	6.3E-07	0.40	0.94	200	1.0E-06	250	5	1.0	14.5	1825	25550
Chromium	1.2E-04	8.8E-06	1.8E-04	1.3E-05	13.03	18.80	200	1.0E-06	250	5	1.0	14.5	1825	25550
Cobalt	7.6E-05	5.4E-06	1.9E-04	1.3E-05	8.02	20.00	200	1.0E-06	250	5	1.0	14.5	1825	25550
Copper	2.0E-04	1.4E-05	4.2E-04	3.0E-05	20.76	44.30	200	1.0E-06	250	5	1.0	14.5	1825	25550
Lead	1.2E-04	8.7E-06	3.7E-04	2.6E-05	25.64	77.80	200	1.0E-06	250	5	0.5	14.5	1825	25550
Manganese	2.4E-03	1.7E-04	7.1E-03	5.1E-04	253.05	750.00	200	1.0E-06	250	5	1.0	14.5	1825	25550
Mercury	7.1E-07	5.1E-08	1.6E-06	1.1E-07	0.08	0.17	200	1.0E-06	250	5	1.0	14.5	1825	25550
Nickel	1.0E-04	7.3E-06	2.4E-04	1.7E-05	10.88	25.60	200	1.0E-06	250	5	1.0	14.5	1825	25550
Selenium	2.4E-06	1.7E-07	5.0E-06	3.6E-07	0.25	0.53	200	1.0E-06	250	5	1.0	14.5	1825	25550
Zinc	5.1E-04	3.6E-05	1.3E-03	9.6E-05	53.50	142.00	200	1.0E-06	250	5	1.0	14.5	1825	25550
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Chloromethane	9.0E-08	6.4E-09	1.1E-07	8.1E-09	0.01	0.0120	200	1.0E-06	250	5	1.0	14.5	1825	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Tetrachloroethene	2.6E-06	1.9E-09	1.9E-08	1.3E-09	0.0028	0.0020	200	1.0E-06	250	5	1.0	14.5	1825	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Vinyl acetate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	1.0E-06	250	5	1.0	14.5	1825	25550
SEMIVOLATILES														
Acenaphthene	1.8E-05	1.3E-06	8.8E-06	6.3E-07	1.914	0.84	200	1.0E-06	250	5	1.0	14.5	1825	25550
Acenaphthylene	3.6E-06	2.5E-07	4.9E-06	3.5E-07	0.377	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Anthracene	3.6E-06	2.6E-07	1.4E-05	1.0E-06	0.384	1.50	200	1.0E-06	250	5	1.0	14.5	1825	25550
Benzo(a)anthracene	3.4E-06	2.5E-07	3.1E-05	2.2E-06	0.363	3.30	200	1.0E-06	250	5	1.0	14.5	1825	25550
Benzo(a)pyrene	2.3E-05	1.6E-06	2.6E-05	1.8E-06	2.411	2.70	200	1.0E-06	250	5	1.0	14.5	1825	25550
Benzo(b)fluoranthene	4.3E-06	3.1E-07	2.6E-05	1.9E-06	0.452	2.80	200	1.0E-06	250	5	1.0	14.5	1825	25550
Benzo(ghi)perylene	3.5E-06	2.5E-07	4.9E-06	3.5E-07	0.375	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Benzo(k)fluoranthene	4.0E-06	2.9E-07	2.9E-05	2.1E-06	0.424	3.10	200	1.0E-06	250	5	1.0	14.5	1825	25550
Bis(2ethylhexyl)phthalate	3.6E-06	2.6E-07	5.6E-06	4.0E-07	0.384	0.59	200	1.0E-06	250	5	1.0	14.5	1825	25550
Butylbenzylphthalate	3.4E-06	2.4E-07	4.9E-06	3.5E-07	0.357	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Chrysene	3.6E-06	2.6E-07	2.6E-05	1.9E-06	0.384	2.80	200	1.0E-06	250	5	1.0	14.5	1825	25550
Dibenzofuran	0.0E+00	0.0E+00	6.1E-06	4.4E-07	NA	0.65	200	1.0E-06	250	5	1.0	14.5	1825	25550
Dibenzo(a,h)anthracene	3.6E-06	2.6E-07	4.9E-06	3.5E-07	0.384	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Di-n-butylphthalate	3.6E-06	2.6E-07	4.9E-06	3.5E-07	0.384	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Di-n-octylphthalate	3.1E-06	2.2E-07	4.9E-06	3.5E-07	0.331	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Fluoranthene	3.6E-06	2.6E-07	7.6E-05	5.4E-06	0.384	8.00	200	1.0E-06	250	5	1.0	14.5	1825	25550
Fluorene	4.1E-06	2.9E-07	1.1E-05	8.1E-07	0.437	1.20	200	1.0E-06	250	5	1.0	14.5	1825	25550
Indeno(123cd)pyrene	3.3E-06	2.4E-07	4.8E-06	3.5E-07	0.355	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Naphthalene	3.6E-06	2.6E-07	4.9E-06	3.5E-07	0.384	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Phenanthrene	3.6E-06	2.6E-07	6.8E-05	4.9E-06	0.384	7.20	200	1.0E-06	250	5	1.0	14.5	1825	25550
Phenol	3.6E-06	2.6E-07	4.9E-06	3.5E-07	0.384	0.52	200	1.0E-06	250	5	1.0	14.5	1825	25550
Pyrene	4.1E-06	2.9E-07	5.4E-05	3.8E-06	0.431	5.70	200	1.0E-06	250	5	1.0	14.5	1825	25550
PESTICIDES														
4,4'-DDE	1.7E-08	1.2E-09	2.3E-08	1.6E-09	0.0059	0.0081	200	1.0E-06	250	5	0.30	14.5	1825	25550
4,4'-DDT	1.4E-08	1.0E-09	2.5E-08	1.8E-09	0.0051	0.0088	200	1.0E-06	250	5	0.30	14.5	1825	25550

TABLE C.1-3
SCENARIO 1
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX	TOTAL PATHWAY RISK	TOTAL PATHWAY RISK	
										1.4E-09	1.3E-04	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										9.3E-10	2.9E-05	MEAN
VOLATILES												
1,1-Dichloroethene	0.0E+00	0.0E+00	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	0.0E+00	0.0E+00			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00			
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00			
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00			
Chloromethane	8.0E-09	1.0E-08	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.0E-10	1.3E-10			
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00			
Tetrachloroethene	2.4E-09	1.7E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	1.2E-10	8.6E-11			
Toluene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Vinyl acetate	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Xylenes	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
SEMIVOLATILES												
Acenaphthene	3.2E-08	7.9E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Acenaphthylene	3.2E-08	4.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Anthracene	3.1E-08	1.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(a)anthracene	3.8E-08	2.8E-07	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00			
Benzo(a)pyrene	3.2E-08	2.3E-07	No	NA	B2	Lung, stomach	IRIS	0.0E+00	0.0E+00			
Benzo(b)fluoranthene	3.6E-08	2.4E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00			
Benzo(ghi)perylene	3.2E-08	4.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(k)fluoranthene	3.0E-08	2.6E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00			
Bis(2ethylhexyl)phthalate	2.6E-08	5.0E-08	No	1.40E-02	B2	Liver	IRIS	3.9E-10	7.0E-10			
Butylbenzylphthalate	3.2E-08	4.4E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00			
Chrysene	3.7E-08	2.4E-07	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00			
Dibenzofuran	3.0E-08	5.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Dibenzo(a,h)anthracene	3.2E-08	4.4E-08	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00			
Di-n-butylphthalate	3.6E-08	4.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Di-n-octylphthalate	3.2E-08	4.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluoranthene	3.0E-08	6.7E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluorene	3.3E-08	1.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Indeno(123cd)pyrene	3.2E-08	4.4E-08	No	NA	B2	Lung, skin	IRIS	0.0E+00	0.0E+00			
Naphthalene	2.8E-08	4.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenanthrene	3.7E-08	6.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenol	3.2E-08	4.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Pyrene	3.7E-08	4.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
PESTICIDES												
4,4'-DDE	5.0E-10	6.8E-10	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.7E-10	2.3E-10			
4,4'-DDT	4.3E-10	7.4E-10	No	3.4E-01	B2	Liver tumor	Diet/IRIS	1.5E-10	2.5E-10			

TABLE C.1-4
SCENARIO 1
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX	TOTAL PATHWAY RISK	
										1.3E-04	MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										2.9E-05	MEAN
INORGANICS											
Aluminum	5.4E-03	7.2E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Antimony	1.9E-06	3.8E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Arsenic	3.5E-06	6.0E-06	No	1.75E+00	A	Skin	IRIS	6.0E-06	1.1E-05		
Barium	1.3E-05	1.9E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Beryllium	1.8E-07	3.2E-07	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	7.9E-07	1.4E-06		
Cadmium	2.7E-07	6.3E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chromium	8.8E-06	1.3E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Cobalt	5.4E-06	1.3E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Copper	1.4E-05	3.0E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Lead	8.7E-06	2.6E-05	No	NA	B2	Renal tumors	NA/IRIS,HEAST	0.0E+00	0.0E+00		
Manganese	1.7E-04	5.1E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Mercury	5.1E-08	1.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Nickel	7.3E-06	1.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Selenium	1.7E-07	3.6E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Zinc	3.6E-05	9.6E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
VOLATILES											
1,1-Dichloroethene	0.0E+00	0.0E+00	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	0.0E+00	0.0E+00		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00		
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00		
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00		
Chloromethane	6.4E-09	8.1E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	8.4E-11	1.1E-10		
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00		
Tetrachloroethene	1.9E-09	1.3E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	9.6E-11	6.9E-11		
Toluene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Vinyl acetate	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Xylenes	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
SEMIVOLATILES											
Acenaphthene	2.5E-07	6.3E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Acenaphthylene	2.6E-07	3.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Anthracene	2.5E-07	1.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzo(a)anthracene	3.1E-07	2.2E-06	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	3.5E-06	2.6E-05		
Benzo(a)pyrene	2.5E-07	1.8E-06	No	1.15E+01	B2	Lung, stomach	IRIS	2.9E-06	2.1E-05		
Benzo(b)fluoranthene	2.9E-07	1.9E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	3.3E-06	2.2E-05		
Benzo(ghi)perylene	2.6E-07	3.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzo(k)fluoranthene	2.4E-07	2.1E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	2.8E-06	2.4E-05		
Bis(2ethylhexyl)phthalate	2.2E-07	4.0E-07	No	1.40E-02	B2	Liver	IRIS	3.1E-09	5.6E-09		
Butylbenzylphthalate	2.6E-07	3.5E-07	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00		
Chrysene	2.9E-07	1.9E-06	No	1.15E+01	B2	Malignant lymphoma	IRIS	3.4E-06	2.2E-05		
Dibenzofuran	2.4E-07	4.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Dibenzo(a,h)anthracene	2.6E-07	3.5E-07	No	1.15E+01	B2	Lung, Mammary	IRIS	3.0E-06	4.0E-06		
Di-n-butylphthalate	2.9E-07	3.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Di-n-octylphthalate	2.6E-07	3.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Fluoranthene	2.4E-07	5.4E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Fluorene	2.7E-07	6.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Indeno(123cd)pyrene	2.6E-07	3.5E-07	No	1.15E+01	B2	Lung, skin	IRIS	3.0E-06	4.0E-06		
Naphthalene	2.3E-07	3.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Phenanthrene	2.9E-07	4.9E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Phenol	2.6E-07	3.5E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Pyrene	2.9E-07	3.8E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
PESTICIDES											
4,4'-DDE	1.2E-09	1.6E-09	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	4.0E-10	5.6E-10		
4,4'-DDT	1.0E-09	1.6E-09	No	3.4E-01	B2	Liver tumor	Diet/IRIS	3.5E-10	6.1E-10		

TABLE C.1-5
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)	PATHWAY HAZARD INDEX (HI)	
												8.1E-03	4.3E-01	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												1.5E-03	2.0E-01	MEAN
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00			
1,1-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA			
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA			
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00			
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00			
Chloromethane	1.1E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA			
Ethylbenzene	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00			
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00			
Tetrachloroethene	3.3E-08	2.4E-08	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	3.3E-08	2.4E-08			
Toluene	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00			
Vinyl acetate	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00			
Xylenes	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00			
SEMIVOLATILES														
Acenaphthene	4.5E-07	1.1E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	7.4E-06	1.9E-05			
Acenaphthylene	4.5E-07	6.1E-07	No	4E-03			NA/IRIS,HEAST			1.1E-04	1.5E-04			
Anthracene	4.3E-07	1.8E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	1.4E-06	5.9E-06			
Benzo(a)anthracene	5.3E-07	3.9E-06	No	4E-03			IRIS,HEAST			1.3E-04	9.7E-04			
Benzo(a)pyrene	4.4E-07	3.2E-06	No	4E-03			IRIS,HEAST			1.1E-04	8.0E-04			
Benzo(b)fluoranthene	5.0E-07	3.3E-06	No	4E-03			IRIS,HEAST			1.3E-04	8.3E-04			
Benzo(ghi)perylene	4.5E-07	6.1E-07	No	4E-03			IRIS,HEAST			1.1E-04	1.5E-04			
Benzo(k)fluoranthene	4.2E-07	3.7E-06	No	4E-03			IRIS,HEAST			1.1E-04	9.2E-04			
Bis(2ethylhexyl)phthalate	3.9E-07	7.0E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.0E-05	3.5E-05			
Butylbenzylphthalate	4.5E-07	6.1E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	2.3E-06	3.1E-06			
Chrysene	5.2E-07	3.3E-06	No	4E-03			NA/HEAST			1.3E-04	8.3E-04			
Dibenzofuran	4.2E-07	7.7E-07	No	4E-03			NA/HEAST	1000		1.0E-04	1.9E-04			
Dibenzo(a,h)anthracene	4.5E-07	6.1E-07	No	4E-03			IRIS,HEAST			1.1E-04	1.5E-04			
Di-n-butylphthalate	5.1E-07	6.1E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	5.1E-06	6.1E-06			
Di-n-octylphthalate	4.5E-07	6.1E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		2.3E-05	3.1E-05			
Fluoranthene	4.2E-07	9.4E-06	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	1.1E-05	2.4E-04			
Fluorene	4.6E-07	1.4E-06	No	4E-02	Low		Gavage/IRIS	3000	1	1.2E-05	3.5E-05			
Indeno(123cd)pyrene	4.5E-07	6.1E-07	No	4E-03			NA/IRIS,HEAST			1.1E-04	1.5E-04			
Naphthalene	4.0E-07	6.1E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.0E-04	1.5E-04			
Phenanthrene	5.1E-07	8.5E-06	No	4E-03			NA/HEAST			1.3E-04	2.1E-03			
Phenol	4.5E-07	6.1E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	7.6E-07	1.0E-06			
Pyrene	5.1E-07	6.7E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.7E-05	2.2E-04			
PESTICIDES														
4,4'-DDE	6.9E-09	9.8E-09	No	5E-04			NA/IRIS,HEAST			1.4E-05	1.9E-05			
4,4'-DDT	8.0E-09	1.0E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.2E-05	2.1E-05			

TABLE C.1-6
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												4.2E-01 1.9E-01
INORGANICS												
Aluminum	7.6E-02	1.0E-01	No	DI			NA/HEAST			NA	NA	
Antimony	2.7E-05	5.3E-05	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	6.8E-02	1.3E-01	
Arsenic	4.6E-05	8.4E-05	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		4.6E-02	8.4E-02	
Barium	1.8E-04	2.7E-04	No	7E-02	Medium	None observed	Water/IRIS	3	1	2.6E-03	3.8E-03	
Beryllium	2.6E-06	4.5E-06	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	5.2E-04	9.1E-04	
Cadmium	3.8E-06	6.9E-06	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	3.8E-03	6.9E-03	
Chromium	1.2E-04	1.8E-04	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	2.5E-02	3.6E-02	
Cobalt	7.6E-05	1.9E-04	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	2.0E-04	4.2E-04	No	4E-02		Local GI irritation	HEAST			4.9E-03	1.0E-02	
Lead	1.2E-04	3.7E-04	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Manganese	2.4E-03	7.1E-03	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	2.4E-02	7.1E-02	
Mercury	7.1E-07	1.8E-06	No	3E-04		Kidney effects	Oral/HEAST	1000		2.4E-03	5.4E-03	
Nickel	1.0E-04	2.4E-04	No	NA			NA/IRIS,HEAST			NA	NA	
Selenium	2.4E-06	5.0E-06	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	4.8E-04	1.0E-03	
Zinc	5.1E-04	1.3E-03	No	2E-01		Anemia	Therapeutic/HEAST	10		2.5E-03	6.7E-03	
VOLATILES												
1,1-Dichloroethene	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00	
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00	
Chloromethane	9.0E-08	1.1E-07	No	NA			NA/IRIS,HEAST			NA	NA	
Ethylbenzene	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00	
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00	
Tetrachloroethene	2.6E-06	1.9E-06	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	2.6E-06	1.9E-06	
Toluene	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00	
Vinyl acetate	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00	
Xylenes	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00	
SEMIVOLATILES												
Acenaphthene	3.6E-06	6.9E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	5.9E-05	1.5E-04	
Acenaphthylene	3.6E-06	4.9E-06	No	4E-03			NA/IRIS,HEAST			9.1E-04	1.2E-03	
Anthracene	3.4E-06	1.4E-05	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	1.1E-05	4.7E-05	
Benzo(a)anthracene	4.3E-06	3.1E-05	No	4E-03			IRIS,HEAST			1.1E-03	7.8E-03	
Benzo(a)pyrene	3.5E-06	2.6E-05	No	4E-03			IRIS,HEAST			8.9E-04	6.4E-03	
Benzo(b)fluoranthene	4.0E-06	2.6E-05	No	4E-03			IRIS,HEAST			1.0E-03	6.6E-03	
Benzo(ghi)perylene	3.6E-06	4.9E-06	No	4E-03			IRIS,HEAST			9.1E-04	1.2E-03	
Benzo(k)fluoranthene	3.4E-06	2.9E-05	No	4E-03			IRIS,HEAST			8.4E-04	7.3E-03	
Bis(2ethylhexyl)phthalate	3.1E-06	5.6E-06	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.6E-04	2.8E-04	
Butylbenzylphthalate	3.6E-06	4.9E-06	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	1.8E-05	2.5E-05	
Chrysene	4.1E-06	2.6E-05	No	4E-03			NA/HEAST			1.0E-03	6.6E-03	
Dibenzofuran	3.3E-06	6.1E-06	No	4E-03			NA/HEAST	1000		8.4E-04	1.5E-03	
Dibenzo(a,h)anthracene	3.8E-06	4.9E-06	No	4E-03			IRIS,HEAST			9.1E-04	1.2E-03	
Di-n-butylphthalate	4.1E-06	4.9E-06	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	4.1E-05	4.9E-05	
Di-n-octylphthalate	3.6E-06	4.9E-06	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		1.8E-04	2.5E-04	
Fluoranthene	3.4E-06	7.6E-05	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	8.4E-05	1.9E-03	
Fluorene	3.7E-06	1.1E-05	No	4E-02	Low		Gavage/IRIS	3000	1	9.3E-05	2.8E-04	
Indeno(123cd)pyrene	3.6E-06	4.9E-06	No	4E-03			NA/IRIS,HEAST			9.1E-04	1.2E-03	
Naphthalene	3.2E-06	4.9E-06	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		8.0E-04	1.2E-03	
Phenanthrene	4.1E-06	6.8E-05	No	4E-03			NA/HEAST			1.0E-03	1.7E-02	
Phenol	3.6E-06	4.9E-06	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	6.0E-06	8.2E-06	
Pyrene	4.1E-06	5.4E-05	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.4E-04	1.8E-03	
PESTICIDES												
4,4'-DDE	1.7E-08	2.3E-08	No	5E-04			NA/IRIS,HEAST			3.3E-05	4.6E-05	
4,4'-DDT	1.4E-08	2.5E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	2.9E-05	5.0E-05	

TABLE C.2-1
SCENARIO 2
DERMAL CONTACT WITH CHEMICALS IN SOIL
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX. (mg/kg/day)	ABS. DOSE CHILD CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8007.26	10600.00	1.0E-06	500	0.00	33	12	43.2	4380	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.87	5.60	1.0E-06	500	0.00	33	12	43.2	4380	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.12	8.90	1.0E-06	500	0.00	33	12	43.2	4380	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.30	28.30	1.0E-06	500	0.00	33	12	43.2	4380	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.27	0.48	1.0E-06	500	0.00	33	12	43.2	4380	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.40	0.94	1.0E-06	500	0.00	33	12	43.2	4380	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.03	18.80	1.0E-06	500	0.00	33	12	43.2	4380	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.02	20.00	1.0E-06	500	0.00	33	12	43.2	4380	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20.76	44.30	1.0E-06	500	0.00	33	12	43.2	4380	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	25.64	77.80	1.0E-06	500	0.00	33	12	43.2	4380	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	253.05	750.00	1.0E-06	500	0.00	33	12	43.2	4380	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.08	0.17	1.0E-06	500	0.00	33	12	43.2	4380	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10.88	25.60	1.0E-06	500	0.00	33	12	43.2	4380	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.25	0.53	1.0E-06	500	0.00	33	12	43.2	4380	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	53.50	142.00	1.0E-06	500	0.00	33	12	43.2	4380	25550
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Chloromethane	5.0E-09	8.5E-10	6.3E-09	1.1E-09	0.010	0.012	1.0E-06	500	0.50	33	12	43.2	4380	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Tetrachloroethene	1.5E-09	2.5E-10	1.0E-09	1.8E-10	0.0028	0.0020	1.0E-06	500	0.50	33	12	43.2	4380	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	33	12	43.2	4380	25550
SEMIVOLATILES														
Acenaphthene	2.0E-08	3.4E-09	4.9E-08	8.4E-09	0.377	0.940	1.0E-06	500	0.05	33	12	43.2	4380	25550
Acenaphthylene	2.0E-08	3.4E-09	2.7E-08	4.7E-09	0.384	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Anthracene	1.9E-08	3.3E-09	7.8E-08	1.3E-08	0.363	1.500	1.0E-06	500	0.05	33	12	43.2	4380	25550
Benzo(a)anthracene	2.4E-08	4.1E-09	1.7E-07	3.0E-08	0.452	3.300	1.0E-06	500	0.05	33	12	43.2	4380	25550
Benzo(a)pyrene	2.0E-08	3.4E-09	1.4E-07	2.4E-08	0.375	2.700	1.0E-06	500	0.05	33	12	43.2	4380	25550
Benzo(b)fluoranthene	2.2E-08	3.8E-09	1.5E-07	2.5E-08	0.424	2.800	1.0E-06	500	0.05	33	12	43.2	4380	25550
Benzo(ghi)perylene	2.0E-08	3.4E-09	2.7E-08	4.7E-09	0.384	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Benzo(k)fluoranthene	1.9E-08	3.2E-09	1.6E-07	2.8E-08	0.357	3.100	1.0E-06	500	0.05	33	12	43.2	4380	25550
Bis(2ethylhexyl)phthalate	1.7E-08	3.0E-09	3.1E-08	5.3E-09	0.331	0.590	1.0E-06	500	0.05	33	12	43.2	4380	25550
Butylbenzylphthalate	2.0E-08	3.4E-09	2.7E-08	4.7E-09	0.384	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Chrysene	2.3E-08	3.9E-09	1.5E-07	2.5E-08	0.437	2.800	1.0E-06	500	0.05	33	12	43.2	4380	25550
Dibenzofuran	1.9E-08	3.2E-09	3.4E-08	5.8E-09	0.355	0.650	1.0E-06	500	0.05	33	12	43.2	4380	25550
Dibenzo(a,h)anthracene	2.0E-08	3.4E-09	2.7E-08	4.7E-09	0.384	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Di-n-butylphthalate	2.3E-08	3.9E-09	2.7E-08	4.7E-09	0.431	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Di-n-octylphthalate	2.0E-08	3.4E-09	2.7E-08	4.7E-09	0.384	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Fluoranthene	1.9E-08	3.2E-09	4.2E-07	7.2E-08	0.357	8.000	1.0E-06	500	0.05	33	12	43.2	4380	25550
Fluorene	2.1E-08	3.5E-09	6.3E-08	1.1E-08	0.393	1.200	1.0E-06	500	0.05	33	12	43.2	4380	25550
Indeno(123cd)pyrene	2.0E-08	3.4E-09	2.7E-08	4.7E-09	0.384	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Naphthalene	1.8E-08	3.0E-09	2.7E-08	4.7E-09	0.337	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Phenanthrene	2.3E-08	3.9E-09	3.8E-07	6.5E-08	0.435	7.200	1.0E-06	500	0.05	33	12	43.2	4380	25550
Phenol	2.0E-08	3.4E-09	2.7E-08	4.7E-09	0.384	0.520	1.0E-06	500	0.05	33	12	43.2	4380	25550
Pyrene	2.3E-08	3.9E-09	3.0E-07	5.1E-08	0.433	5.700	1.0E-06	500	0.05	33	12	43.2	4380	25550
PESTICIDES														
4,4'-DDE	2.7E-10	4.6E-11	4.6E-10	7.9E-11	0.0051	0.0088	1.0E-06	500	0.05	33	12	43.2	4380	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	33	12	43.2	4380	25550

TABLE C.2–2
SCENARIO 2
INGESTION OF CHEMICALS IN SOIL
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E–6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	1.7E–03	2.9E–04	2.2E–03	3.8E–04	8007.26	10600.00	100	1.0E–06	33	12	1.0	43.2	4380	25550
Antimony	6.0E–07	1.0E–07	1.2E–06	2.0E–07	2.87	5.60	100	1.0E–06	33	12	1.0	43.2	4380	25550
Arsenic	1.1E–06	1.8E–07	1.9E–06	3.2E–07	5.12	8.90	100	1.0E–06	33	12	1.0	43.2	4380	25550
Barium	4.0E–06	6.8E–07	5.9E–06	1.0E–06	19.30	28.30	100	1.0E–06	33	12	1.0	43.2	4380	25550
Beryllium	5.7E–08	9.8E–09	1.0E–07	1.7E–08	0.27	0.48	100	1.0E–06	33	12	1.0	43.2	4380	25550
Cadmium	8.4E–08	1.4E–08	2.0E–07	3.4E–08	0.40	0.94	100	1.0E–06	33	12	1.0	43.2	4380	25550
Chromium	2.7E–06	4.7E–07	3.9E–06	6.7E–07	13.03	18.80	100	1.0E–06	33	12	1.0	43.2	4380	25550
Cobalt	1.7E–06	2.9E–07	4.2E–06	7.2E–07	8.02	20.00	100	1.0E–06	33	12	1.0	43.2	4380	25550
Copper	4.3E–06	7.4E–07	9.3E–06	1.6E–06	20.76	44.30	100	1.0E–06	33	12	1.0	43.2	4380	25550
Lead	2.7E–06	4.6E–07	8.1E–06	1.4E–06	25.64	77.80	100	1.0E–06	33	12	0.5	43.2	4380	25550
Manganese	5.3E–05	9.1E–06	1.6E–04	2.7E–05	253.05	750.00	100	1.0E–06	33	12	1.0	43.2	4380	25550
Mercury	1.6E–08	2.7E–09	3.6E–08	6.1E–09	0.08	0.17	100	1.0E–06	33	12	1.0	43.2	4380	25550
Nickel	2.3E–06	3.9E–07	5.4E–06	9.2E–07	10.66	25.60	100	1.0E–06	33	12	1.0	43.2	4380	25550
Selenium	5.3E–08	9.1E–09	1.1E–07	1.9E–08	0.25	0.53	100	1.0E–06	33	12	1.0	43.2	4380	25550
Zinc	1.1E–05	1.9E–06	3.0E–05	5.1E–06	53.50	142.00	100	1.0E–06	33	12	1.0	43.2	4380	25550
VOLATILES														
1,1–Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
1,1,2,2–Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Chloromethane	2.0E–09	3.4E–10	2.5E–09	4.3E–10	0.010	0.0120	100	1.0E–06	33	12	1.0	43.2	4380	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Tetrachloroethene	5.9E–10	1.0E–10	4.2E–10	7.2E–11	0.0028	0.0020	100	1.0E–06	33	12	1.0	43.2	4380	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	1.0	43.2	4380	25550
SEMIVOLATILES														
Acenaphthene	7.9E–08	1.4E–08	2.0E–07	3.4E–08	0.377	0.94	100	1.0E–06	33	12	1.0	43.2	4380	25550
Acenaphthylene	8.0E–08	1.4E–08	1.1E–07	1.9E–08	0.384	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Anthracene	7.6E–08	1.3E–08	3.1E–07	5.4E–08	0.363	1.50	100	1.0E–06	33	12	1.0	43.2	4380	25550
Benzo(a)anthracene	9.5E–08	1.6E–08	6.9E–07	1.2E–07	0.452	3.30	100	1.0E–06	33	12	1.0	43.2	4380	25550
Benzo(a)pyrene	7.9E–08	1.3E–08	5.7E–07	9.7E–08	0.375	2.70	100	1.0E–06	33	12	1.0	43.2	4380	25550
Benzo(b)fluoranthene	8.9E–08	1.5E–08	5.9E–07	1.0E–07	0.424	2.80	100	1.0E–06	33	12	1.0	43.2	4380	25550
Benzo(ghi)perylene	8.0E–08	1.4E–08	1.1E–07	1.9E–08	0.384	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Benzo(k)fluoranthene	7.5E–08	1.3E–08	6.5E–07	1.1E–07	0.357	3.10	100	1.0E–06	33	12	1.0	43.2	4380	25550
Bis(2ethylhexyl)phthalate	6.9E–08	1.2E–08	1.2E–07	2.1E–08	0.331	0.59	100	1.0E–06	33	12	1.0	43.2	4380	25550
Butylbenzylphthalate	8.0E–08	1.4E–08	1.1E–07	1.9E–08	0.384	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Chrysene	9.1E–08	1.6E–08	5.9E–07	1.0E–07	0.437	2.80	100	1.0E–06	33	12	1.0	43.2	4380	25550
Dibenzofuran	7.4E–08	1.3E–08	1.4E–07	2.3E–08	0.355	0.65	100	1.0E–06	33	12	1.0	43.2	4380	25550
Dibenzo(a,h)anthracene	8.0E–08	1.4E–08	1.1E–07	1.9E–08	0.384	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Di–n–butylphthalate	9.0E–08	1.5E–08	1.1E–07	1.9E–08	0.431	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Di–n–octylphthalate	8.0E–08	1.4E–08	1.1E–07	1.9E–08	0.384	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Fluoranthene	7.5E–08	1.3E–08	1.7E–06	2.9E–07	0.357	8.00	100	1.0E–06	33	12	1.0	43.2	4380	25550
Fluorene	8.2E–08	1.4E–08	2.5E–07	4.3E–08	0.393	1.20	100	1.0E–06	33	12	1.0	43.2	4380	25550
Indeno(123cd)pyrene	8.0E–08	1.4E–08	1.1E–07	1.9E–08	0.384	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Naphthalene	7.1E–08	1.2E–08	1.1E–07	1.9E–08	0.337	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Phenanthrene	9.1E–08	1.6E–08	1.5E–06	2.6E–07	0.435	7.20	100	1.0E–06	33	12	1.0	43.2	4380	25550
Phenol	8.0E–08	1.4E–08	1.1E–07	1.9E–08	0.384	0.52	100	1.0E–06	33	12	1.0	43.2	4380	25550
Pyrene	9.1E–08	1.6E–08	1.2E–06	2.0E–07	0.433	5.70	100	1.0E–06	33	12	1.0	43.2	4380	25550
PESTICIDES														
4,4'–DDE	3.2E–10	5.5E–11	5.5E–10	9.5E–11	0.0051	0.0088	100	1.0E–06	33	12	0.3	43.2	4380	25550
4,4'–DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	1.0E–06	33	12	0.3	43.2	4380	25550

TABLE C.2-3
SCENARIO 2
CANCER RISK ESTIMATES
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK	TOTAL RISK	
										1.2E-10	7.1E-06	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										8.1E-11	1.5E-06	MEAN
VOLATILES												
1,1-Dichloroethene	0.0E+00	0.0E+00	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	0.0E+00	0.0E+00			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00			
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00			
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00			
Chloromethane	8.5E-10	1.1E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.1E-11	1.4E-11			
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00			
Tetrachloroethene	2.5E-10	1.8E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	1.3E-11	9.1E-12			
Toluene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Vinyl chloride	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Xylenes	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
SEMIVOLATILES												
Acenaphthene	3.4E-09	8.4E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Acenaphthylene	3.4E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Anthracene	3.3E-09	1.3E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(a)anthracene	4.1E-09	3.0E-08	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00			
Benzo(a)pyrene	3.4E-09	2.4E-08	No	NA	B2	Lung, stomach	IRIS	0.0E+00	0.0E+00			
Benzo(b)fluoranthene	3.8E-09	2.5E-08	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00			
Benzo(ghi)perylene	3.4E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(k)fluoranthene	3.2E-09	2.8E-08	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00			
Bis(2ethylhexyl)phthalate	3.0E-09	5.3E-09	No	1.40E-02	B2	Liver	IRIS	4.2E-11	7.4E-11			
Butylbenzylphthalate	3.4E-09	4.7E-09	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00			
Chrysene	3.9E-09	2.5E-08	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00			
Dibenzofuran	3.2E-09	5.8E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Dibenzo(a,h)anthracene	3.4E-09	4.7E-09	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00			
Di-n-butylphthalate	3.9E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Di-n-octylphthalate	3.4E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluoranthene	3.2E-09	7.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluorene	3.5E-09	1.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Indeno(123cd)pyrene	3.4E-09	4.7E-09	No	NA	B2	Lung, skin	IRIS	0.0E+00	0.0E+00			
Naphthalene	3.0E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenanthrene	3.9E-09	6.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenol	3.4E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Pyrene	3.9E-09	5.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
PESTICIDES												
4,4'-DDE	4.6E-11	7.9E-11	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.5E-11	2.7E-11			
4,4'-DDT	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00			

TABLE C.2-4
SCENARIO 2
CANCER RISK ESTIMATES
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK
										7.1E-06 MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										1.5E-06 MEAN
INORGANICS										
Aluminum	2.9E-04	3.8E-04	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Antimony	1.0E-07	2.0E-07	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Arsenic	1.8E-07	3.2E-07	No	1.75E+00	A	Skin	IRIS	3.2E-07	5.6E-07	
Barium	6.9E-07	1.0E-06	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Beryllium	9.8E-09	1.7E-08	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	4.2E-08	7.4E-08	
Cadmium	1.4E-08	3.4E-08	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Chromium	4.7E-07	6.7E-07	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Cobalt	2.9E-07	7.2E-07	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Copper	7.4E-07	1.6E-06	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Lead	4.6E-07	1.4E-06	No	NA	B2	Renal tumors	NA/RIS,HEAST	0.0E+00	0.0E+00	
Manganese	9.1E-06	2.7E-05	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Mercury	2.7E-09	6.1E-09	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Nickel	3.9E-07	9.2E-07	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Selenium	9.1E-09	1.9E-08	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Zinc	1.9E-06	5.1E-06	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
VOLATILES										
1,1-Dichloroethene	0.0E+00	0.0E+00	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	0.0E+00	0.0E+00	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00	
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00	
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00	
Chloromethane	3.4E-10	4.3E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	4.4E-12	5.6E-12	
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00	
Tetrachloroethene	1.0E-10	7.2E-11	No	5.10E-02	B2	Liver	Gavage/HEAST	5.1E-12	3.7E-12	
Toluene	0.0E+00	0.0E+00	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Vinyl chloride	0.0E+00	0.0E+00	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Xylenes	0.0E+00	0.0E+00	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
SEMIVOLATILES										
Acenaphthene	1.4E-08	3.4E-08	No	NA			NA/RIS,HEAST	0.0E+00	0.0E+00	
Acenaphthylene	1.4E-08	1.9E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Anthracene	1.3E-08	5.4E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Benzo(a)anthracene	1.6E-08	1.2E-07	No	1.15E+01	B2	Liver, lung, Skin	IRIS	1.9E-07	1.4E-06	
Benzo(a)pyrene	1.3E-08	9.7E-08	No	1.15E+01	B2	Lung, stomach	IRIS	1.5E-07	1.1E-06	
Benzo(b)fluoranthene	1.5E-08	1.0E-07	No	1.15E+01	B2	Lung, thorax, skin	IRIS	1.7E-07	1.2E-06	
Benzo(ghi)perylene	1.4E-08	1.9E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Benzo(k)fluoranthene	1.3E-08	1.1E-07	No	1.15E+01	B2	Lung, thorax, skin	IRIS	1.5E-07	1.3E-06	
Bis(2ethylhexyl)phthalate	1.2E-08	2.1E-08	No	1.40E-02	B2	Liver	IRIS	1.7E-10	3.0E-10	
Butylbenzylphthalate	1.4E-08	1.9E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	
Chrysene	1.6E-08	1.0E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.8E-07	1.2E-06	
Dibenzofuran	1.3E-08	2.3E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Dibenzo(a,h)anthracene	1.4E-08	1.9E-08	No	1.15E+01	B2	Lung, Mammary	IRIS	1.6E-07	2.1E-07	
Di-n-butylphthalate	1.5E-08	1.9E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Di-n-octylphthalate	1.4E-08	1.9E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Fluoranthene	1.3E-08	2.9E-07	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Fluorene	1.4E-08	4.3E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Indeno(123cd)pyrene	1.4E-08	1.9E-08	No	1.15E+01	B2	Lung, skin	IRIS	1.6E-07	2.1E-07	
Naphthalene	1.2E-08	1.9E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Phenanthrene	1.6E-08	2.6E-07	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Phenol	1.4E-08	1.9E-08	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
Pyrene	1.6E-08	2.0E-07	No	NA	D		NA/RIS,HEAST	0.0E+00	0.0E+00	
PESTICIDES										
4,4'-DDE	5.5E-11	9.5E-11	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.9E-11	3.2E-11	
4,4'-DDT	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00	

TABLE C.2-5
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)	PATHWAY HAZARD INDEX (HI)
												3.6E-04	9.8E-03 MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												6.7E-05	4.4E-03 MEAN
VOLATILES													
1,1-Dichloroethene	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00		
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00		
Chloromethane	5.0E-09	6.3E-09	No	NA			NA/IRIS,HEAST			NA	NA		
Ethylbenzene	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00		
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00		
Tetrachloroethene	1.5E-09	1.0E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	1.5E-07	1.0E-07		
Toluene	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00		
Vinyl chloride	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00		
Xylenes	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00		
SEMIVOLATILES													
Acenaphthene	2.0E-08	4.9E-08	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	3.3E-07	8.2E-07		
Acenaphthylene	2.0E-08	2.7E-08	No	4E-03			NA/IRIS,HEAST			5.0E-06	6.8E-06		
Anthracene	1.9E-08	7.8E-08	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	6.3E-08	2.6E-07		
Benzo(a)anthracene	2.4E-08	1.7E-07	No	4E-03			IRIS,HEAST			5.9E-06	4.3E-05		
Benzo(a)pyrene	2.0E-08	1.4E-07	No	4E-03			IRIS,HEAST			4.9E-06	3.5E-05		
Benzo(b)fluoranthene	2.2E-08	1.5E-07	No	4E-03			IRIS,HEAST			5.5E-06	3.7E-05		
Benzo(ghi)perylene	2.0E-08	2.7E-08	No	4E-03			IRIS,HEAST			5.0E-06	6.8E-06		
Benzo(k)fluoranthene	1.9E-08	1.6E-07	No	4E-03			IRIS,HEAST			4.7E-06	4.1E-05		
Bis(2ethylhexyl)phthalate	1.7E-08	3.1E-08	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	8.6E-07	1.5E-06		
Butylbenzylphthalate	2.0E-08	2.7E-08	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	1.0E-07	1.4E-07		
Chrysene	2.3E-08	1.5E-07	No	4E-03			NA/HEAST			5.7E-06	3.7E-05		
Dibenzofuran	1.9E-08	3.4E-08	No	4E-03			NA/HEAST	1000		4.6E-06	8.5E-06		
Dibenzo(a,h)anthracene	2.0E-08	2.7E-08	No	4E-03			IRIS,HEAST			5.0E-06	6.8E-06		
Di-n-butylphthalate	2.3E-08	2.7E-08	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	2.3E-07	2.7E-07		
Di-n-octylphthalate	2.0E-08	2.7E-08	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		1.0E-06	1.4E-06		
Fluoranthene	1.9E-08	4.2E-07	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	4.7E-07	1.0E-05		
Fluorene	2.1E-08	6.3E-08	No	4E-02	Low		Gavage/IRIS	3000	1	5.1E-07	1.6E-06		
Indeno(123cd)pyrene	2.0E-08	2.7E-08	No	4E-03			NA/IRIS,HEAST			5.0E-06	6.8E-06		
Naphthalene	1.8E-08	2.7E-08	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		4.4E-06	6.8E-06		
Phenanthrene	2.3E-08	3.8E-07	No	4E-03			NA/HEAST			5.7E-06	9.4E-05		
Phenol	2.0E-08	2.7E-08	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	3.3E-06	4.5E-06		
Pyrene	2.3E-08	3.0E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	7.5E-07	9.9E-06		
PESTICIDES													
4,4'-DDE	2.7E-10	4.6E-10	No	5E-04			NA/IRIS,HEAST			5.3E-07	9.2E-07		
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00		

TABLE C.2-6
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												9.4E-03 MAXIMUM 4.3E-03 MEAN
INORGANICS												
Aluminum	1.7E-03	2.2E-03	No	NA			NA/HEAST					
Antimony	6.0E-07	1.2E-06	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	1.5E-03	2.9E-03	
Arsenic	1.1E-06	1.9E-06	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		1.1E-03	1.9E-03	
Barium	4.0E-06	6.9E-06	No	7E-02	Medium	None observed	Water/IRIS	3	1	5.8E-05	9.5E-05	
Beryllium	5.7E-08	1.0E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	1.1E-05	2.0E-05	
Cadmium	8.4E-08	2.0E-07	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	8.4E-05	2.0E-04	
Chromium	2.7E-06	3.9E-06	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	5.5E-04	7.9E-04	
Cobalt	1.7E-06	4.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	4.3E-06	9.3E-06	No	4E-02		Local GI irritation	HEAST			1.1E-04	2.3E-04	
Lead	2.7E-06	8.1E-06	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Manganese	5.3E-05	1.6E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	5.3E-04	1.6E-03	
Mercury	1.6E-06	3.6E-06	No	3E-04		Kidney effects	Oral/HEAST	1000		5.2E-05	1.2E-04	
Nickel	2.3E-06	5.4E-06	No	NA			NA/IRIS,HEAST			NA	NA	
Selenium	5.3E-06	1.1E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	1.1E-05	2.2E-05	
Zinc	1.1E-05	3.0E-05	No	2E-01		Anemia	Therapeutic/HEAST	10		5.6E-05	1.5E-04	
VOLATILES												
1,1-Dichloroethene	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00	
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00	
Chloromethane	2.0E-08	2.5E-08	No	NA			NA/IRIS,HEAST			NA	NA	
Ethylbenzene	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00	
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00	
Tetrachloroethene	5.9E-10	4.2E-10	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	5.9E-08	4.2E-08	
Toluene	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00	
Vinyl chloride	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00	
Xylenes	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00	
SEMIVOLATILES												
Acenaphthene	7.9E-08	2.0E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	1.3E-06	3.3E-06	
Acenaphthylene	8.0E-08	1.1E-07	No	4E-03			NA/IRIS,HEAST			2.0E-05	2.7E-05	
Anthracene	7.6E-06	3.1E-07	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	2.5E-07	1.0E-06	
Benzo(a)anthracene	9.5E-06	6.9E-07	No	4E-03			IRIS,HEAST			2.4E-05	1.7E-04	
Benzo(a)pyrene	7.9E-08	5.7E-07	No	4E-03			IRIS,HEAST			2.0E-05	1.4E-04	
Benzo(b)fluoranthene	6.9E-08	5.9E-07	No	4E-03			IRIS,HEAST			2.2E-05	1.5E-04	
Benzo(ghi)perylene	8.0E-08	1.1E-07	No	4E-03			IRIS,HEAST			2.0E-05	2.7E-05	
Benzo(k)fluoranthene	7.5E-08	6.5E-07	No	4E-03			IRIS,HEAST			1.9E-05	1.6E-04	
Bis(2ethylhexyl)phthalate	6.9E-08	1.2E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	3.5E-06	6.2E-06	
Butylbenzylphthalate	8.0E-08	1.1E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	4.0E-07	5.4E-07	
Chrysene	9.1E-08	5.9E-07	No	4E-03			NA/HEAST			2.3E-05	1.5E-04	
Dibenzofuran	7.4E-08	1.4E-07	No	4E-03			NA/HEAST	1000		1.9E-05	3.4E-05	
Dibenzo(a,h)anthracene	8.0E-08	1.1E-07	No	4E-03			IRIS,HEAST			2.0E-05	2.7E-05	
Di-n-butylphthalate	9.0E-08	1.1E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	9.0E-07	1.1E-06	
Di-n-octylphthalate	8.0E-08	1.1E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		4.0E-06	5.4E-06	
Fluoranthene	7.5E-08	1.7E-06	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	1.9E-06	4.2E-05	
Fluorene	8.2E-08	2.5E-07	No	4E-02	Low		Gavage/IRIS	3000	1	2.1E-06	6.3E-06	
Indeno(123cd)pyrene	8.0E-08	1.1E-07	No	4E-03			NA/IRIS,HEAST			2.0E-05	2.7E-05	
Naphthalene	7.1E-06	1.1E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.8E-05	2.7E-05	
Phenanthrene	9.1E-08	1.5E-06	No	4E-03			NA/HEAST			2.3E-05	3.8E-04	
Phenol	8.0E-06	1.1E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	1.3E-07	1.8E-07	
Pyrene	9.1E-08	1.2E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	3.0E-06	4.0E-05	
PESTICIDES												
4,4'-DDE	3.2E-10	5.5E-10	No	5E-04			NA/IRIS,HEAST			6.4E-07	1.1E-06	
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00	

TABLE C.3-1
SCENARIO 3
DERMAL CONTACT WITH CHEMICALS IN SOIL
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	ABSORBED DOSE NONCANCER MEAN (mg/kg/day)	ABSORBED DOSE CANCER MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER MAX. (mg/kg/day)	ABSORBED DOSE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6775.46	11900.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.60	5.50	1.0E-06	500	0.00	250	1	70.0	365	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.68	9.60	1.0E-06	500	0.00	250	1	70.0	365	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	14.60	57.50	1.0E-06	500	0.00	250	1	70.0	365	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.20	0.35	1.0E-06	500	0.00	250	1	70.0	365	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.48	8.10	1.0E-06	500	0.00	250	1	70.0	365	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.85	15.20	1.0E-06	500	0.00	250	1	70.0	365	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.57	20.50	1.0E-06	500	0.00	250	1	70.0	365	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	28.29	312.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	28.57	777.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	296.98	960.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.07	0.21	1.0E-06	500	0.00	250	1	70.0	365	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	14.91	28.80	1.0E-06	500	0.00	250	1	70.0	365	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.37	1.70	1.0E-06	500	0.00	250	1	70.0	365	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	68.95	2580.00	1.0E-06	500	0.00	250	1	70.0	365	25550
VOLATILES														
1,1-Dichloroethene	1.9E-08	2.7E-10	1.2E-08	1.7E-10	0.01	0.005	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2,2-Tetrachloroethane	2.0E-08	2.8E-10	1.7E-08	2.4E-10	0.01	0.007	1.0E-06	500	0.50	250	1	70.0	365	25550
Benzene	1.9E-08	2.7E-10	1.2E-08	1.7E-10	0.01	0.005	1.0E-06	500	0.50	250	1	70.0	365	25550
Carbon disulfide	2.1E-08	3.0E-10	2.7E-08	3.8E-10	0.01	0.011	1.0E-06	500	0.50	250	1	70.0	365	25550
Chloroform	2.0E-08	2.9E-10	2.0E-08	2.8E-10	0.01	0.008	1.0E-06	500	0.50	250	1	70.0	365	25550
Chloromethane	4.4E-08	6.2E-10	3.4E-08	4.9E-10	0.018	0.014	1.0E-06	500	0.50	250	1	70.0	365	25550
Ethylbenzene	2.5E-08	3.5E-10	3.9E-07	5.6E-09	0.01	0.160	1.0E-06	500	0.50	250	1	70.0	365	25550
Styrene	2.0E-08	2.9E-10	1.7E-08	2.4E-10	0.01	0.007	1.0E-06	500	0.50	250	1	70.0	365	25550
Tetrachloroethene	2.0E-08	2.9E-10	1.7E-08	2.4E-10	0.0082	0.007	1.0E-06	500	0.50	250	1	70.0	365	25550
Toluene	1.9E-08	2.8E-10	1.6E-07	2.3E-09	0.01	0.067	1.0E-06	500	0.50	250	1	70.0	365	25550
Vinyl chloride	3.9E-08	5.5E-10	2.7E-08	3.8E-10	0.02	0.011	1.0E-06	500	0.50	250	1	70.0	365	25550
Xylenes	2.5E-08	3.5E-10	2.9E-06	4.2E-08	0.01	1.200	1.0E-06	500	0.50	250	1	70.0	365	25550
SEMIVOLATILES														
Acenaphthene	8.0E-08	1.1E-09	3.9E-07	5.6E-09	0.329	1.600	1.0E-06	500	0.05	250	1	70.0	365	25550
Acenaphthylene	6.7E-08	9.6E-10	1.1E-07	1.6E-09	0.276	0.460	1.0E-06	500	0.05	250	1	70.0	365	25550
Anthracene	6.4E-08	9.1E-10	2.7E-07	3.8E-09	0.260	1.100	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)anthracene	7.4E-08	1.1E-09	4.4E-07	6.3E-09	0.304	1.800	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)pyrene	7.6E-08	1.1E-09	3.9E-07	5.6E-09	0.310	1.600	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(b)fluoranthene	7.4E-08	1.1E-09	3.4E-07	4.9E-09	0.302	1.400	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(ghi)perylene	7.6E-08	1.1E-09	1.8E-07	2.6E-09	0.309	0.740	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(k)fluoranthene	6.1E-08	8.7E-10	3.4E-07	4.9E-09	0.248	1.400	1.0E-06	500	0.05	250	1	70.0	365	25550
Bis(2ethylhexyl)phthalate	6.7E-08	9.6E-10	1.1E-07	1.5E-09	0.276	0.430	1.0E-06	500	0.05	250	1	70.0	365	25550
Butylbenzylphthalate	7.3E-08	1.0E-09	1.1E-07	1.6E-09	0.299	0.460	1.0E-06	500	0.05	250	1	70.0	365	25550
Chrysene	6.9E-08	9.9E-10	4.2E-07	5.9E-09	0.284	1.700	1.0E-06	500	0.05	250	1	70.0	365	25550
Dibenzofuran	7.2E-08	1.0E-09	1.1E-07	1.6E-09	0.295	0.460	1.0E-06	500	0.05	250	1	70.0	365	25550
Dibenzo(a,h)anthracene	6.1E-08	8.7E-10	1.1E-07	1.6E-09	0.250	0.460	1.0E-06	500	0.05	250	1	70.0	365	25550
Di-n-butylphthalate	6.0E-08	8.6E-10	1.1E-07	1.6E-09	0.246	0.460	1.0E-06	500	0.05	250	1	70.0	365	25550
Di-n-octylphthalate	7.3E-08	1.0E-09	1.1E-07	1.6E-09	0.299	0.460	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluoranthene	1.1E-07	1.6E-09	5.9E-07	8.4E-09	0.457	2.400	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluorene	7.7E-08	1.1E-09	1.8E-07	2.6E-09	0.317	0.730	1.0E-06	500	0.05	250	1	70.0	365	25550
Indeno(123cd)pyrene	7.6E-08	1.1E-09	1.5E-07	2.2E-09	0.309	0.620	1.0E-06	500	0.05	250	1	70.0	365	25550
Naphthalene	6.4E-08	9.1E-10	1.1E-07	1.5E-09	0.260	0.430	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenanthrene	1.1E-07	1.5E-09	1.1E-06	1.6E-08	0.436	4.600	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenol	7.1E-08	1.0E-09	1.2E-07	1.7E-09	0.292	0.490	1.0E-06	500	0.05	250	1	70.0	365	25550
Pyrene	1.0E-07	1.5E-09	1.2E-06	1.7E-08	0.428	4.900	1.0E-06	500	0.05	250	1	70.0	365	25550
PESTICIDES														
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550

TABLE C.3-2
SCENARIO 3
INGESTION OF CHEMICALS IN SOIL AND DUST
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	3.2E-02	4.5E-04	5.6E-02	8.0E-04	6775.46	11900.00	480	1.0E-06	250	1	1.0	70.0	365	25550
Antimony	1.7E-05	2.4E-07	2.6E-05	3.7E-07	3.60	5.50	480	1.0E-06	250	1	1.0	70.0	365	25550
Arsenic	1.7E-05	2.5E-07	4.5E-05	6.4E-07	3.66	9.60	480	1.0E-06	250	1	1.0	70.0	365	25550
Barium	6.9E-05	9.8E-07	2.7E-04	3.9E-06	14.60	57.50	480	1.0E-06	250	1	1.0	70.0	365	25550
Beryllium	9.6E-07	1.4E-08	1.6E-06	2.3E-08	0.20	0.35	480	1.0E-06	250	1	1.0	70.0	365	25550
Cadmium	2.3E-06	3.2E-08	3.8E-05	5.4E-07	0.48	8.10	480	1.0E-06	250	1	1.0	70.0	365	25550
Chromium	4.6E-05	6.6E-07	7.1E-05	1.0E-06	9.85	15.20	480	1.0E-06	250	1	1.0	70.0	365	25550
Cobalt	4.5E-05	6.4E-07	9.6E-05	1.4E-06	9.57	20.50	480	1.0E-06	250	1	1.0	70.0	365	25550
Copper	1.3E-04	1.9E-06	1.5E-03	2.1E-05	28.29	312.00	480	1.0E-06	250	1	1.0	70.0	365	25550
Lead	4.0E-05	5.8E-07	1.1E-03	1.6E-05	28.57	777.00	480	1.0E-06	250	1	0.3	70.0	365	25550
Manganese	1.4E-03	2.0E-05	4.5E-03	6.4E-05	296.98	960.00	480	1.0E-06	250	1	1.0	70.0	365	25550
Mercury	3.1E-07	4.5E-09	9.9E-07	1.4E-08	0.07	0.21	480	1.0E-06	250	1	1.0	70.0	365	25550
Nickel	7.0E-05	1.0E-06	1.4E-04	1.9E-06	14.91	28.80	480	1.0E-06	250	1	1.0	70.0	365	25550
Selenium	1.7E-06	2.5E-08	8.0E-06	1.1E-07	0.37	1.70	480	1.0E-06	250	1	1.0	70.0	365	25550
Zinc	3.2E-04	4.6E-06	1.2E-02	1.7E-04	68.95	2580.00	480	1.0E-06	250	1	1.0	70.0	365	25550
VOLATILES														
1,1-Dichloroethene	3.7E-08	5.3E-10	2.3E-06	3.4E-10	0.01	0.005	480	1.0E-06	250	1	1.0	70.0	365	25550
1,1,2,2-Tetrachloroethane	3.8E-08	5.5E-10	3.3E-08	4.7E-10	0.01	0.007	480	1.0E-06	250	1	1.0	70.0	365	25550
Benzene	3.7E-08	5.3E-10	2.3E-08	3.4E-10	0.01	0.005	480	1.0E-06	250	1	1.0	70.0	365	25550
Carbon disulfide	4.0E-08	5.7E-10	5.2E-08	7.4E-10	0.01	0.011	480	1.0E-06	250	1	1.0	70.0	365	25550
Chloroform	3.8E-08	5.5E-10	3.8E-08	5.4E-10	0.01	0.008	480	1.0E-06	250	1	1.0	70.0	365	25550
Chloromethane	8.4E-08	1.2E-09	6.6E-08	9.4E-10	0.02	0.014	480	1.0E-06	250	1	1.0	70.0	365	25550
Ethylbenzene	4.7E-08	6.7E-10	7.5E-07	1.1E-08	0.01	0.160	480	1.0E-06	250	1	1.0	70.0	365	25550
Styrene	3.8E-08	5.5E-10	3.3E-08	4.7E-10	0.01	0.007	480	1.0E-06	250	1	1.0	70.0	365	25550
Tetrachloroethene	3.8E-08	5.5E-10	3.3E-08	4.7E-10	0.01	0.007	480	1.0E-06	250	1	1.0	70.0	365	25550
Toluene	3.7E-08	5.3E-10	3.1E-07	4.5E-09	0.01	0.067	480	1.0E-06	250	1	1.0	70.0	365	25550
Vinyl chloride	7.4E-08	1.1E-09	5.2E-08	7.4E-10	0.02	0.011	480	1.0E-06	250	1	1.0	70.0	365	25550
Xylenes	4.8E-08	6.8E-10	5.6E-08	8.1E-08	0.01	1.200	480	1.0E-06	250	1	1.0	70.0	365	25550
SEMIVOLATILES														
Acenaphthene	1.5E-06	2.2E-08	7.5E-06	1.1E-07	0.33	1.60	480	1.0E-06	250	1	1.0	70.0	365	25550
Acenaphthylene	1.3E-06	1.8E-08	2.2E-06	3.1E-08	0.28	0.46	480	1.0E-06	250	1	1.0	70.0	365	25550
Anthracene	1.2E-06	1.7E-08	5.2E-06	7.4E-08	0.26	1.10	480	1.0E-06	250	1	1.0	70.0	365	25550
Benzo(a)anthracene	1.4E-06	2.0E-08	8.5E-06	1.2E-07	0.30	1.80	480	1.0E-06	250	1	1.0	70.0	365	25550
Benzo(a)pyrene	1.5E-06	2.1E-08	7.5E-06	1.1E-07	0.31	1.60	480	1.0E-06	250	1	1.0	70.0	365	25550
Benzo(b)fluoranthene	1.4E-06	2.0E-08	6.6E-06	9.4E-08	0.30	1.40	480	1.0E-06	250	1	1.0	70.0	365	25550
Benzo(ghi)perylene	1.5E-06	2.1E-08	3.5E-06	5.0E-08	0.31	0.74	480	1.0E-06	250	1	1.0	70.0	365	25550
Benzo(k)fluoranthene	1.2E-06	1.7E-08	6.6E-06	9.4E-08	0.25	1.40	480	1.0E-06	250	1	1.0	70.0	365	25550
Bis(2ethylhexyl)phthalate	1.3E-06	1.9E-08	2.0E-06	2.9E-08	0.28	0.43	480	1.0E-06	250	1	1.0	70.0	365	25550
Butylbenzylphthalate	1.4E-06	2.0E-08	2.2E-06	3.1E-08	0.30	0.46	480	1.0E-06	250	1	1.0	70.0	365	25550
Chrysene	1.3E-06	1.9E-08	8.0E-06	1.1E-07	0.28	1.70	480	1.0E-06	250	1	1.0	70.0	365	25550
Dibenzofuran	1.4E-06	2.0E-08	2.2E-06	3.1E-08	0.29	0.46	480	1.0E-06	250	1	1.0	70.0	365	25550
Dibenzo(a,h)anthracene	1.2E-06	1.7E-08	2.2E-06	3.1E-08	0.25	0.46	480	1.0E-06	250	1	1.0	70.0	365	25550
Di-n-butylphthalate	1.2E-06	1.7E-08	2.2E-06	3.1E-08	0.25	0.46	480	1.0E-06	250	1	1.0	70.0	365	25550
Di-n-octylphthalate	1.4E-06	2.0E-08	2.2E-06	3.1E-08	0.30	0.46	480	1.0E-06	250	1	1.0	70.0	365	25550
Fluoranthene	2.1E-06	3.1E-08	1.1E-05	1.6E-07	0.46	2.40	480	1.0E-06	250	1	1.0	70.0	365	25550
Fluorene	1.5E-06	2.1E-08	3.4E-06	4.9E-08	0.32	0.73	480	1.0E-06	250	1	1.0	70.0	365	25550
Indeno(123cd)pyrene	1.5E-06	2.1E-08	2.9E-06	4.2E-08	0.31	0.62	480	1.0E-06	250	1	1.0	70.0	365	25550
Naphthalene	1.2E-06	1.7E-08	2.0E-06	2.9E-08	0.26	0.43	480	1.0E-06	250	1	1.0	70.0	365	25550
Phenanthrene	2.0E-06	2.8E-08	2.2E-05	3.1E-07	0.44	4.60	480	1.0E-06	250	1	1.0	70.0	365	25550
Phenol	1.4E-06	2.0E-08	2.3E-06	3.3E-08	0.29	0.49	480	1.0E-06	250	1	1.0	70.0	365	25550
Pyrene	2.0E-06	2.9E-08	2.3E-05	3.3E-07	0.43	4.90	480	1.0E-06	250	1	1.0	70.0	365	25550
PESTICIDES														
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	0.30	70.0	365	25550

TABLE C.3-3
SCENARIO 3
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR (m3/day)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	4.77E-07	6.82E-09	8.36E-07	1.20E-08	3.60E-10	6775.46	11900.00	20	250	1	1.0	70	365	25550
Antimony	2.53E-10	3.62E-12	3.87E-10	5.54E-12	3.60E-10	3.60	5.50	20	250	1	1.0	70	365	25550
Arsenic	2.58E-10	3.68E-12	6.76E-10	9.66E-12	3.60E-10	3.66	9.60	20	250	1	1.0	70	365	25550
Barium	1.03E-09	1.47E-11	4.05E-09	5.79E-11	3.60E-10	14.60	57.50	20	250	1	1.0	70	365	25550
Beryllium	1.44E-11	2.06E-13	2.47E-11	3.52E-13	3.60E-10	0.20	0.35	20	250	1	1.0	70	365	25550
Cadmium	3.40E-11	4.86E-13	5.71E-10	8.15E-12	3.60E-10	0.48	8.10	20	250	1	1.0	70	365	25550
Chromium	6.94E-10	9.91E-12	1.07E-09	1.53E-11	3.60E-10	9.85	15.20	20	250	1	1.0	70	365	25550
Cobalt	6.75E-10	9.64E-12	1.44E-09	2.06E-11	3.60E-10	9.57	20.50	20	250	1	1.0	70	365	25550
Copper	1.99E-09	2.85E-11	2.20E-08	3.14E-10	3.60E-10	28.29	312.00	20	250	1	1.0	70	365	25550
Lead	2.01E-09	2.88E-11	5.47E-08	7.82E-10	3.60E-10	28.57	777.00	20	250	1	1.0	70	365	25550
Manganese	2.09E-08	2.99E-10	6.76E-08	9.66E-10	3.60E-10	296.98	960.00	20	250	1	1.0	70	365	25550
Mercury	4.70E-12	6.72E-14	1.48E-11	2.11E-13	3.60E-10	0.07	0.21	20	250	1	1.0	70	365	25550
Nickel	1.05E-09	1.50E-11	2.03E-09	2.90E-11	3.60E-10	14.91	28.80	20	250	1	1.0	70	365	25550
Selenium	2.62E-11	3.75E-13	1.20E-10	1.71E-12	3.60E-10	0.37	1.70	20	250	1	1.0	70	365	25550
Zinc	4.86E-09	6.94E-11	1.82E-07	2.60E-09	3.60E-10	68.95	2560.00	20	250	1	1.0	70	365	25550
VOLATILES														
1,1-Dichloroethene	5.54E-13	7.92E-15	3.52E-13	5.03E-15	3.60E-10	0.0079	0.005	20	250	1	1.0	70	365	25550
1,1,2,2-Tetrachloroethane	5.77E-13	8.25E-15	4.93E-13	7.05E-15	3.60E-10	0.0082	0.007	20	250	1	1.0	70	365	25550
Benzene	5.54E-13	7.92E-15	3.52E-13	5.03E-15	3.60E-10	0.0079	0.005	20	250	1	1.0	70	365	25550
Carbon disulfide	5.86E-13	8.54E-15	7.75E-13	1.11E-14	3.60E-10	0.0065	0.011	20	250	1	1.0	70	365	25550
Chloroform	5.77E-13	8.25E-15	5.84E-13	8.05E-15	3.60E-10	0.0082	0.008	20	250	1	1.0	70	365	25550
Chloromethane	1.25E-12	1.79E-14	9.86E-13	1.41E-14	3.60E-10	0.0178	0.014	20	250	1	1.0	70	365	25550
Ethylbenzene	7.07E-13	1.01E-14	1.13E-11	1.61E-13	3.60E-10	0.0100	0.160	20	250	1	1.0	70	365	25550
Styrene	5.77E-13	8.25E-15	4.93E-13	7.05E-15	3.60E-10	0.0082	0.007	20	250	1	1.0	70	365	25550
Tetrachloroethene	5.77E-13	8.25E-15	4.93E-13	7.05E-15	3.60E-10	0.0082	0.007	20	250	1	1.0	70	365	25550
Toluene	5.60E-13	8.00E-15	4.72E-12	6.74E-14	3.60E-10	0.0079	0.067	20	250	1	1.0	70	365	25550
Vinyl chloride	1.11E-12	1.59E-14	7.75E-13	1.11E-14	3.60E-10	0.0158	0.011	20	250	1	1.0	70	365	25550
Xylenes	7.14E-13	1.02E-14	8.45E-11	1.21E-12	3.60E-10	0.0101	1.200	20	250	1	1.0	70	365	25550
SEMIVOLATILES														
Acenaphthene	2.32E-11	3.31E-13	1.13E-10	1.61E-12	3.60E-10	0.33	1.60	20	250	1	1.0	70	365	25550
Acenaphthylene	1.94E-11	2.77E-13	3.24E-11	4.63E-13	3.60E-10	0.28	0.46	20	250	1	1.0	70	365	25550
Anthracene	1.83E-11	2.62E-13	7.75E-11	1.11E-12	3.60E-10	0.26	1.10	20	250	1	1.0	70	365	25550
Benzo(a)anthracene	2.14E-11	3.06E-13	1.27E-10	1.81E-12	3.60E-10	0.30	1.80	20	250	1	1.0	70	365	25550
Benzo(a)pyrene	2.18E-11	3.12E-13	1.13E-10	1.61E-12	3.60E-10	0.31	1.60	20	250	1	1.0	70	365	25550
Benzo(b)fluoranthene	2.13E-11	3.04E-13	9.86E-11	1.41E-12	3.60E-10	0.30	1.40	20	250	1	1.0	70	365	25550
Benzo(ghi)perylene	2.18E-11	3.11E-13	5.21E-11	7.45E-13	3.60E-10	0.31	0.74	20	250	1	1.0	70	365	25550
Benzo(k)fluoranthene	1.75E-11	2.50E-13	9.86E-11	1.41E-12	3.60E-10	0.25	1.40	20	250	1	1.0	70	365	25550
Bis(2ethylhexyl)phthalate	1.94E-11	2.78E-13	3.03E-11	4.33E-13	3.60E-10	0.28	0.43	20	250	1	1.0	70	365	25550
Butylbenzylphthalate	2.11E-11	3.01E-13	3.24E-11	4.63E-13	3.60E-10	0.30	0.46	20	250	1	1.0	70	365	25550
Chrysene	2.00E-11	2.86E-13	1.20E-10	1.71E-12	3.60E-10	0.28	1.70	20	250	1	1.0	70	365	25550
Dibenzofuran	2.07E-11	2.96E-13	3.24E-11	4.63E-13	3.60E-10	0.29	0.46	20	250	1	1.0	70	365	25550
Dibenzo(a,h)anthracene	1.76E-11	2.52E-13	3.24E-11	4.63E-13	3.60E-10	0.25	0.46	20	250	1	1.0	70	365	25550
Di-n-butylphthalate	1.73E-11	2.48E-13	3.24E-11	4.63E-13	3.60E-10	0.25	0.46	20	250	1	1.0	70	365	25550
Di-n-octylphthalate	2.11E-11	3.01E-13	3.24E-11	4.63E-13	3.60E-10	0.30	0.46	20	250	1	1.0	70	365	25550
Fluoranthene	3.22E-11	4.60E-13	1.69E-10	2.42E-12	3.60E-10	0.46	2.40	20	250	1	1.0	70	365	25550
Fluorene	2.23E-11	3.19E-13	5.14E-11	7.35E-13	3.60E-10	0.32	0.73	20	250	1	1.0	70	365	25550
Indeno(123cd)pyrene	2.18E-11	3.11E-13	4.37E-11	6.24E-13	3.60E-10	0.31	0.62	20	250	1	1.0	70	365	25550
Naphthalene	1.83E-11	2.62E-13	3.03E-11	4.33E-13	3.60E-10	0.26	0.43	20	250	1	1.0	70	365	25550
Phenanthrene	3.07E-11	4.39E-13	3.24E-10	4.63E-12	3.60E-10	0.44	4.60	20	250	1	1.0	70	365	25550
Phenol	2.05E-11	2.84E-13	3.45E-11	4.93E-13	3.60E-10	0.29	0.49	20	250	1	1.0	70	365	25550
Pyrene	3.01E-11	4.30E-13	3.45E-10	4.93E-12	3.60E-10	0.43	4.90	20	250	1	1.0	70	365	25550
PESTICIDES														
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-10	NA	NA	20	250	1	1.0	70	365	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-10	NA	NA	20	250	1	1.0	70	365	25550

TABLE C.3-4
SCENARIO 3
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK	TOTAL RISK
										2.1E-10	8.2E-06 MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										2.8E-10	2.0E-06 MEAN
VOLATILES											
1,1-Dichloroethene	2.7E-10	1.7E-10	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	1.6E-10	1.0E-10		
1,1,2,2-Tetrachloroethane	2.9E-10	2.4E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	5.7E-11	4.9E-11		
Benzene	2.7E-10	1.7E-10	No	2.90E-02	A	Leukemia	Occupational/IRIS	8.0E-12	5.1E-12		
Carbon disulfide	3.0E-10	3.8E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Chloroform	2.9E-10	2.8E-10	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	1.7E-12	1.7E-12		
Chloromethane	6.2E-10	4.9E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	8.1E-12	6.4E-12		
Ethylberzene	3.5E-10	5.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Styrene	2.9E-10	2.4E-10	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	8.6E-12	7.3E-12		
Tetrachloroethene	2.9E-10	2.4E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	1.5E-11	1.2E-11		
Toluene	2.8E-10	2.3E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Vinyl chloride	5.5E-10	3.8E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Xylenes	3.5E-10	4.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
SEMIVOLATILES											
Acenaphthene	1.1E-09	5.6E-09	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00		
Acenaphthylene	9.8E-10	1.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Anthracene	9.1E-10	3.8E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzo(a)anthracene	1.1E-09	6.3E-09	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00		
Benzo(a)pyrene	1.1E-09	5.6E-09	No	NA	B2	Lung, stomach	IRIS	0.0E+00	0.0E+00		
Benzo(b)fluoranthene	1.1E-09	4.9E-09	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00		
Benzo(ghi)perylene	1.1E-09	2.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Benzo(k)fluoranthene	8.7E-10	4.9E-09	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00		
Bis(2ethylhexyl)phthalate	9.6E-10	1.5E-09	No	1.40E-02	B2	Liver	IRIS	1.3E-11	2.1E-11		
Butylbenzylphthalate	1.0E-09	1.6E-09	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00		
Chrysene	9.9E-10	5.9E-09	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00		
Dibenzofuran	1.0E-09	1.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Dibenzo(a,h)anthracene	8.7E-10	1.6E-09	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00		
Di-n-butylphthalate	8.6E-10	1.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Di-n-octylphthalate	1.0E-09	1.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Fluoranthene	1.6E-09	8.4E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Fluorene	1.1E-09	2.6E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Indeno(123cd)pyrene	1.1E-09	2.2E-09	No	NA	B2	Lung, skin	IRIS	0.0E+00	0.0E+00		
Naphthalene	9.1E-10	1.5E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Phenanthrene	1.5E-09	1.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Phenol	1.0E-09	1.7E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
Pyrene	1.5E-09	1.7E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00		
PESTICIDES											
4,4'-DDE	0.0E+00	0.0E+00	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00		
4,4'-DDT	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00		

TABLE C.3-5
SCENARIO 3
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK
										8.2E-06 MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										2.0E-06 MEAN
INORGANICS										
Aluminum	4.5E-04	8.0E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Antimony	2.4E-07	3.7E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Arsenic	2.5E-07	6.4E-07	No	1.75E+00	A	Skin	IRIS	4.3E-07	1.1E-06	
Barium	9.8E-07	3.9E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Beryllium	1.4E-08	2.3E-08	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	5.9E-08	1.0E-07	
Cadmium	3.2E-08	5.4E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chromium	6.6E-07	1.0E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Cobalt	6.4E-07	1.4E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Copper	1.9E-06	2.1E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Lead	5.8E-07	1.6E-05	No	NA	B2	Renal tumors	NA/IRIS,HEAST	0.0E+00	0.0E+00	
Manganese	2.0E-05	6.4E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Mercury	4.5E-09	1.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Nickel	1.0E-06	1.9E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Selenium	2.5E-08	1.1E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Zinc	4.6E-06	1.7E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
VOLATILES										
1,1-Dichloroethene	5.3E-10	3.4E-10	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	3.2E-10	2.0E-10	
1,1,2,2-Tetrachloroethane	5.5E-10	4.7E-10	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.1E-10	9.4E-11	
Benzene	5.3E-10	3.4E-10	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.5E-11	9.7E-12	
Carbon disulfide	5.7E-10	7.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chloroform	5.5E-10	5.4E-10	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	3.4E-12	3.3E-12	
Chloromethane	1.2E-09	9.4E-10	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.6E-11	1.2E-11	
Ethylbenzene	6.7E-10	1.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Styrene	5.5E-10	4.7E-10	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.6E-11	1.4E-11	
Tetrachloroethene	5.5E-10	4.7E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	2.8E-11	2.4E-11	
Toluene	5.3E-10	4.5E-09	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Vinyl chloride	1.1E-09	7.4E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Xylenes	6.8E-10	8.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
SEMIVOLATILES										
Acenaphthene	2.2E-08	1.1E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Acenaphthylene	1.8E-08	3.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Anthracene	1.7E-08	7.4E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Benzo(a)anthracene	2.0E-08	1.2E-07	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	2.3E-07	1.4E-06	
Benzo(a)pyrene	2.1E-08	1.1E-07	No	1.15E+01	B2	Lung, stomach	IRIS	2.4E-07	1.2E-06	
Benzo(b)fluoranthene	2.0E-08	9.4E-08	No	1.15E+01	B2	Lung, thorax, skin	IRIS	2.3E-07	1.1E-06	
Benzo(ghi)perylene	2.1E-08	5.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Benzo(k)fluoranthene	1.7E-08	9.4E-08	No	1.15E+01	B2	Lung, thorax, skin	IRIS	1.9E-07	1.1E-06	
Bis(2-ethylhexyl)phthalate	1.9E-08	2.9E-08	No	1.40E-02	B2	Liver	IRIS	2.6E-10	4.0E-10	
Butylbenzylphthalate	2.0E-08	3.1E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	
Chrysene	1.9E-08	1.1E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	2.2E-07	1.3E-06	
Dibenzofuran	2.0E-08	3.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Dibenzo(a,h)anthracene	1.7E-08	3.1E-08	No	1.15E+01	B2	Lung, Mammary	IRIS	1.9E-07	3.5E-07	
Di-n-butylphthalate	1.7E-08	3.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Di-n-octylphthalate	2.0E-08	3.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Fluoranthene	3.1E-08	1.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Fluorene	2.1E-08	4.9E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Indeno(123cd)pyrene	2.1E-08	4.2E-08	No	1.15E+01	B2	Lung, skin	IRIS	2.4E-07	4.8E-07	
Naphthalene	1.7E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Phenanthrene	2.9E-08	3.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Phenol	2.0E-08	3.3E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Pyrene	2.9E-08	3.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
PESTICIDES										
4,4'-DDE	0.0E+00	0.0E+00	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	
4,4'-DDT	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00	

TABLE C.3-6
SCENARIO 3
SUMMARY OF CANCER RISK ESTIMATES - SCENARIO 3
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST										1.3E-09 MAXIMUM 6.3E-10 MEAN
INORGANICS										
Aluminum	6.8E-09	1.2E-08	No	NA			IRIS, HEAST	0.0E+00	0.0E+00	
Antimony	3.6E-12	5.5E-12	No	NA			NA/IRIS, HEAST	0.0E+00	0.0E+00	
Arsenic	3.7E-12	9.7E-12	No	5.0E+01	A	Respiratory tract	Occupational/IRIS	1.8E-10	4.8E-10	
Barium	1.5E-11	5.8E-11	No	NA			IRIS, HEAST	0.0E+00	0.0E+00	
Beryllium	2.1E-13	3.5E-13	No	8.4E+00	B2	Lung	Occupational/IRIS	1.7E-12	3.0E-12	
Cadmium	4.9E-13	8.2E-12	No	6.3E+00	B1	Respiratory tract	Occupational/IRIS	3.1E-12	5.1E-11	
Chromium	9.9E-12	1.5E-11	No	4.2E+01	A	Lung	Occupational/IRIS	4.2E-10	6.4E-10	
Cobalt	9.5E-12	2.1E-11	No	NA	D		IRIS, HEAST	0.0E+00	0.0E+00	
Copper	2.8E-11	3.1E-10	No	NA	D		IRIS, HEAST	0.0E+00	0.0E+00	
Lead	2.9E-11	7.8E-10	No	NA	B2		IRIS, HEAST	0.0E+00	0.0E+00	
Manganese	3.0E-10	9.7E-10	No	NA	D		IRIS, HEAST	0.0E+00	0.0E+00	
Mercury	6.7E-14	2.1E-13	No	NA	D		IRIS, HEAST	0.0E+00	0.0E+00	
Nickel	1.5E-11	2.9E-11	No	8.4E-01	A	Lung and nasal tumors	Occupational/IRIS	1.3E-11	2.4E-11	
Selenium	3.7E-13	1.7E-12	No	NA	D		IRIS, HEAST	0.0E+00	0.0E+00	
Zinc	6.9E-11	2.6E-09	No	NA			IRIS, HEAST	0.0E+00	0.0E+00	
VOLATILES										
1,1-Dichloroethene	7.9E-15	5.0E-15	No	1.8E-01	C	Kidney, adenocarcinoma	IRIS, HEAST	1.4E-15	9.1E-16	
1,1,2,2-Tetrachloroethane	8.2E-15	7.0E-15	No	NA	D		IRIS	0.0E+00	0.0E+00	
Benzene	7.9E-15	5.0E-15	No	2.9E-02	A	Leukemia	Occupational/IRIS	2.3E-16	1.5E-16	
Carbon disulfide	8.5E-15	1.1E-14	No	NA			IRIS, HEAST	0.0E+00	0.0E+00	
Chloroform	8.2E-15	8.1E-15	No	8.1E-02	B2	Liver	IRIS	6.7E-16	6.5E-16	
Chloromethane	1.6E-14	1.4E-14	No	6.0E-03	C	Kidney	Inhalation/HEAST	1.1E-16	8.5E-17	
Ethylbenzene	1.0E-14	1.6E-13	No	NA	D		HEAST	0.0E+00	0.0E+00	
Styrene	8.2E-15	7.0E-15	No	2.0E-03	B2	Leukemia	HEAST	1.6E-17	1.4E-17	
Tetrachloroethene	8.2E-15	7.0E-15	No	1.8E-03	B2	Leukemia, liver	HEAST	1.5E-17	1.3E-17	
Toluene	8.0E-15	6.7E-14	No	NA	D		HEAST	0.0E+00	0.0E+00	
Vinyl chloride	1.6E-14	1.1E-14	No	3.0E-01	A	Liver	Inhalation/HEAST	4.8E-15	3.3E-15	
Xylenes	1.0E-14	1.2E-12	No	NA	D		IRIS, HEAST	0.0E+00	0.0E+00	
SEMIVOLATILES										
Acenaphthene	3.3E-13	1.6E-12	No	NA			IRIS	0.0E+00	0.0E+00	
Acenaphthylene	2.8E-13	4.6E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Anthracene	2.8E-13	1.1E-12	No	NA	D		IRIS	0.0E+00	0.0E+00	
Benzo(a)anthracene	3.1E-13	1.8E-12	No	6.1E+00	B2	Liver, lung, skin	IRIS	1.9E-12	1.1E-11	
Benzo(a)pyrene	3.1E-13	1.6E-12	No	6.1E+00	B2	Stomach, respiratory tract	Inhalation/HEAST	1.9E-12	9.8E-12	
Benzo(b)fluoranthene	3.0E-13	1.4E-12	No	6.1E+00	B2	Lung, thorax, skin	IRIS	1.9E-12	8.6E-12	
Benzo(ghi)perylene	3.1E-13	7.4E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Benzo(k)fluoranthene	2.5E-13	1.4E-12	No	6.1E+00	B2	Lung, thorax, skin	IRIS	1.5E-12	8.6E-12	
Bis(2-ethylhexyl)phthalate	2.8E-13	4.3E-13	No	NA	B2		HEAST	0.0E+00	0.0E+00	
Butylbenzylphthalate	3.0E-13	4.6E-13	No	NA	C		IRIS, HEAST	0.0E+00	0.0E+00	
Chrysene	2.9E-13	1.7E-12	No	6.1E+00	B2	Malignant lymphoma	IRIS	1.7E-12	1.0E-11	
Dibenzofuran	3.0E-13	4.6E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Dibenzo(a,h)anthracene	2.5E-13	4.6E-13	No	6.1E+00	B2	Lung, mammary	IRIS	1.5E-12	2.8E-12	
Di-n-butylphthalate	2.5E-13	4.6E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Di-n-octylphthalate	3.0E-13	4.6E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Fluoranthene	4.6E-13	2.4E-12	No	NA	D		IRIS	0.0E+00	0.0E+00	
Fluorene	3.2E-13	7.3E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Indeno(123cd)pyrene	3.1E-13	6.2E-13	No	6.1E+00	B2	Lung, skin	IRIS	1.9E-12	3.8E-12	
Naphthalene	2.6E-13	4.3E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Phenanthrene	4.4E-13	4.6E-12	No	NA	D		IRIS	0.0E+00	0.0E+00	
Phenol	2.9E-13	4.9E-13	No	NA	D		IRIS	0.0E+00	0.0E+00	
Pyrene	4.3E-13	4.9E-12	No	NA	D		IRIS	0.0E+00	0.0E+00	
PESTICIDES										
4,4'-DDE	0.0E+00	0.0E+00	No	3.4E-01	B2		HEAST	0.0E+00	0.0E+00	
4,4'-DDT	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver	Diet/IRIS, HEAST	0.0E+00	0.0E+00	

TABLE C.3-7
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)
											1.2E-04	2.7E-01 MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL											3.5E-05	8.8E-02 MEAN
VOLATILES												
1,1-Dichloroethene	1.9E-08	1.2E-08	No	9E-03	Liver lesions	Water/HEAST	UF=1000		2.1E-06	1.4E-06		
1,1,2,2-Tetrachloroethane	2.0E-08	1.7E-08	No	9E-01	Hepatotoxicity	HEAST	UF=100		2.2E-08	1.9E-08		
Benzene	1.9E-08	1.2E-08	No	NA		NA/HEAST			NA	NA		
Carbon disulfide	2.1E-08	2.7E-08	No	1E-01	Fetal toxicity, malformations	Inhalation/HEAST	UF=100		2.1E-07	2.7E-07		
Chloroform	2.0E-08	2.0E-08	No	1E-02	Liver lesions	HEAST	UF=1000		2.0E-06	2.0E-06		
Chloromethane	4.4E-08	3.4E-08	No	NA		NA/HEAST			NA	NA		
Ethylbenzene	2.5E-08	3.9E-07	No	1E+00	Hepatotoxicity, nephrotoxicity	Oral/HEAST	UF=100		2.5E-08	3.9E-07		
Styrene	2.0E-08	1.7E-08	No	2E+00	RBC and liver effects	Gavage/HEAST	UF=100		1.0E-08	8.6E-09		
Tetrachloroethene	2.0E-08	1.7E-08	No	1E-01	Hepatotoxicity	Gavage/HEAST	UF=100		2.0E-07	1.7E-07		
Toluene	1.9E-08	1.6E-07	No	2E+00	Changes in liver and kidney weight	HEAST	UF=100		9.7E-09	8.2E-08		
Vinyl chloride	3.9E-08	2.7E-08	No	NA		NA/HEAST			NA	NA		
Xylenes	2.5E-08	2.9E-06	No	4E+00	None observed	HEAST	UF=100		6.2E-09	7.3E-07		
SEMIVOLATILES												
Acenaphthene	8.0E-08	3.9E-07	No	6E-01	Hepatoxicity	Gavage/HEAST	UF=300		1.3E-07	6.5E-07		
Acenaphthylene	6.7E-08	1.1E-07	No	4E-02		NA/HEAST			1.7E-06	2.8E-06		
Anthracene	6.4E-08	2.7E-07	No	3E+00	No observed effects	Gavage/HEAST	UF=300		2.1E-08	9.0E-08		
Benzo(a)anthracene	7.4E-08	4.4E-07	No	4E-02		NA/HEAST			1.9E-06	1.1E-05		
Benzo(a)pyrene	7.6E-08	3.9E-07	No	4E-02		NA/HEAST			1.9E-06	9.8E-06		
Benzo(b)fluoranthene	7.4E-08	3.4E-07	No	4E-02		NA/HEAST			1.8E-06	8.6E-06		
Benzo(ghi)perylene	7.6E-08	1.8E-07	No	4E-02		NA/HEAST			1.9E-06	4.5E-06		
Benzo(k)fluoranthene	6.1E-08	3.4E-07	No	4E-02		NA/HEAST			1.5E-06	8.6E-06		
Bis(2ethylhexyl)phthalate	6.7E-08	1.1E-07	No	2E-02	Increased relative liver weight	Diet/HEAST	UF=1000	MF=1	3.4E-06	5.3E-06		
Butylbenzylphthalate	7.3E-08	1.1E-07	No	2E+00	Effects on body weight gain, testes, liver	Diet/HEAST	UF=100		3.7E-08	5.6E-08		
Chrysene	6.9E-08	4.2E-07	No	4E-02		HEAST			1.7E-06	1.0E-05		
Dibenzofuran	7.2E-08	1.1E-07	No	4E-02		NA/HEAST			1.8E-06	2.8E-06		
Dibenzo(a,h)anthracene	6.1E-08	1.1E-07	No	4E-02		NA/HEAST			1.5E-06	2.8E-06		
Di-n-butylphthalate	6.0E-08	1.1E-07	No	1E+00	Mortality	Diet/HEAST	UF=100		6.0E-08	1.1E-07		
Di-n-octylphthalate	7.3E-08	1.1E-07	No	2E-02	Elevated kidney and liver weight, increased SGOT,SGPT	Diet/HEAST	UF=1000		3.7E-06	5.6E-06		
Fluoranthene	1.1E-07	5.9E-07	No	4E-01	Neuropathy,liver weight changes,hematological changes	Gavage/HEAST	UF=300		2.8E-07	1.5E-06		
Fluorene	7.7E-08	1.8E-07	No	4E-01	Hematological changes	Gavage/HEAST	UF=300		1.9E-07	4.5E-07		
Indeno(123cd)pyrene	7.6E-08	1.5E-07	No	4E-02		NA/HEAST			1.9E-06	3.8E-06		
Naphthalene	6.4E-08	1.1E-07	No	4E-02	Decreased body weight gain	Gavage/HEAST	UF=1000		1.6E-06	2.6E-06		
Phenanthrene	1.1E-07	1.1E-06	No	4E-02		NA/HEAST			2.7E-06	2.8E-05		
Phenol	7.1E-08	1.2E-07	No	6E-01	Reduced fetal body weight	Gavage/HEAST	UF=100		1.2E-07	2.0E-07		
Pyrene	1.0E-07	1.2E-06	No	3E-01	Renal effects	Gavage/HEAST	UF=300		3.5E-07	4.0E-06		
PESTICIDES												
4,4'-DDE	0.0E+00	0.0E+00	No	5E-04		NA/HEAST			0.0E+00	0.0E+00		
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Liver lesions	Diet/HEAST	UF=100		0.0E+00	0.0E+00		

TABLE C.3-8
SCENARIO 3
SUMMARY OF CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											2.7E-01 6.7E-02	MAXIMUM MEAN
INORGANICS												
Aluminum	3.2E-02	5.6E-02	No	NA		HEAST			NA	NA		
Antimony	1.7E-05	2.6E-05	No	4E-04	Reduced lifespan, altered blood chemistry	Water/HEAST	UF = 1000		4.2E-02	6.5E-02		
Arsenic	1.7E-05	4.5E-05	No	1E-03	Keratosis and hyperpigmentation	NA/HEAST	UF = 1		1.7E-02	4.5E-02		
Barium	6.9E-05	2.7E-04	No	5E-02	Increased blood pressure	Water/HEAST	UF = 100		1.4E-03	5.4E-03		
Beryllium	9.6E-07	1.6E-06	No	5E-03	None observed	Water/HEAST	UF = 100		1.9E-04	3.3E-04		
Cadmium	2.3E-06	3.8E-05	No	NA		NA/HEAST			NA	NA		
Chromium	4.6E-05	7.1E-05	No	2E-02	Not defined	Water/HEAST	UF = 100		2.3E-03	3.6E-03		
Cobalt	4.5E-05	9.6E-05	No	NA		HEAST			NA	NA		
Copper	1.3E-04	1.5E-03	No	4E-02	Local GI irritation	NA/HEAST	UF = NA		3.3E-03	3.7E-02		
Lead	4.0E-05	1.1E-03	No	NA		NA/HEAST			NA	NA		
Manganese	1.4E-03	4.5E-03	No	1E-01	No effect	Occupational/HEAST	UF = 1		1.4E-02	4.5E-02		
Mercury	3.1E-07	9.9E-07	No	3E-04	Kidney effects	Oral/HEAST	UF = 1000		1.0E-03	3.3E-03		
Nickel	7.0E-05	1.4E-04	No	2E-02	Decreased body weight and organ weights	Diet/HEAST	UF = 300		3.5E-03	6.8E-03		
Selenium	1.7E-06	8.0E-06	No	NA		HEAST			NA	NA		
Zinc	3.2E-04	1.2E-02	No	2E-01	Anemia	Therapeutic/HEAST	UF = 10		1.6E-03	6.1E-02		
VOLATILES												
1,1-Dichloroethene	3.7E-08	2.3E-08	No	9E-03	Liver lesions	Water/HEAST	UF = 1000		4.1E-06	2.6E-06		
1,1,2,2-Tetrachloroethane	3.8E-08	3.3E-08	No	9E-01	Hepatotoxicity	HEAST	UF = 100		4.3E-08	3.7E-08		
Benzene	3.7E-08	2.3E-08	No	NA		NA/HEAST			NA	NA		
Carbon disulfide	4.0E-06	5.2E-06	No	1E-01	Fetal toxicity, malformations	Inhalation/HEAST	UF = 100		4.0E-07	5.2E-07		
Chloroform	3.8E-06	3.8E-06	No	1E-02	Liver lesions	HEAST	UF = 1000		3.8E-06	3.8E-06		
Chloromethane	6.4E-06	6.6E-06	No	NA		NA/HEAST			NA	NA		
Ethylbenzene	4.7E-06	7.5E-07	No	1E+00	Hepatotoxicity, nephrotoxicity	Oral/HEAST	UF = 100		4.7E-08	7.5E-07		
Styrene	3.8E-06	3.3E-06	No	2E+00	RBC and liver effects	Gavage/HEAST	UF = 100		1.9E-06	1.6E-06		
Tetrachloroethene	3.8E-06	3.3E-06	No	1E-01	Hepatotoxicity	Gavage/HEAST	UF = 100		3.8E-07	3.3E-07		
Toluene	3.7E-06	3.1E-07	No	2E+00	Changes in liver and kidney weight	HEAST	UF = 100		1.9E-06	1.6E-07		
Vinyl chloride	7.4E-06	5.2E-06	No	NA		NA/HEAST			NA	NA		
Xylenes	4.6E-06	5.6E-06	No	4E+00	None observed	HEAST	UF = 100		1.2E-06	1.4E-06		
SEMIVOLATILES												
Acenaphthene	1.5E-06	7.5E-06	No	6E-01	Hepatoxicity	Gavage/HEAST	UF = 300		2.6E-06	1.3E-05		
Acenaphthylene	1.3E-06	2.2E-06	No	4E-02		NA/HEAST			3.2E-05	5.4E-05		
Anthracene	1.2E-06	5.2E-06	No	3E+00	No observed effects	Gavage/HEAST	UF = 300		4.1E-07	1.7E-06		
Benzo(a)anthracene	1.4E-06	8.5E-06	No	4E-02		NA/HEAST			3.6E-05	2.1E-04		
Benzo(a)pyrene	1.5E-06	7.5E-06	No	4E-02		NA/HEAST			3.6E-05	1.9E-04		
Benzo(b)fluoranthene	1.4E-06	6.6E-06	No	4E-02		NA/HEAST			3.5E-05	1.6E-04		
Benzo(ghi)perylene	1.5E-06	3.5E-06	No	4E-02		NA/HEAST			3.6E-05	8.7E-05		
Benzo(k)fluoranthene	1.2E-06	6.6E-06	No	4E-02		NA/HEAST			2.9E-05	1.6E-04		
Bis(2ethylhexyl)phthalate	1.3E-06	2.0E-06	No	2E-02	Increased relative liver weight	Diet/HEAST	UF = 1000	MF = 1	6.5E-05	1.0E-04		
Butylbenzylphthalate	1.4E-06	2.2E-06	No	2E+00	Effects on body weight gain, testes, liver	Diet/HEAST	UF = 100		7.0E-07	1.1E-06		
Chrysene	1.3E-06	8.0E-06	No	4E-02		HEAST			3.3E-05	2.0E-04		
Dibenzofuran	1.4E-06	2.2E-06	No	4E-02		NA/HEAST			3.5E-05	5.4E-05		
Dibenzo(a,h)anthracene	1.2E-06	2.2E-06	No	4E-02		NA/HEAST			2.9E-05	5.4E-05		
Di-n-butylphthalate	1.2E-06	2.2E-06	No	1E+00	Mortality	Diet/HEAST	UF = 100		1.2E-06	2.2E-06		
Di-n-octylphthalate	1.4E-06	2.2E-06	No	2E-02	Elevated kidney and liver weight, increased SGOT,SGPT	Diet/HEAST	UF = 1000		7.0E-05	1.1E-04		
Fluoranthene	2.1E-06	1.1E-05	No	4E-01	Neuropathy,liver weight changes,hematological changes	Gavage/HEAST	UF = 300		5.4E-06	2.8E-05		
Fluorene	1.5E-06	3.4E-06	No	4E-01	Hematological changes	Gavage/HEAST	UF = 300		3.7E-06	8.6E-06		
Indeno(123cd)pyrene	1.5E-06	2.9E-06	No	4E-02		NA/HEAST			3.6E-05	7.3E-05		
Naphthalene	1.2E-06	2.0E-06	No	4E-02	Decreased body weight gain	Gavage/HEAST	UF = 1000		3.1E-05	5.0E-05		
Phenanthrene	2.0E-06	2.2E-05	No	4E-02		NA/HEAST			5.1E-05	5.4E-04		
Phenol	1.4E-06	2.3E-06	No	6E-01	Reduced fetal body weight	Gavage/HEAST	UF = 100		2.3E-06	3.8E-06		
Pyrene	2.0E-06	2.3E-05	No	3E-01	Renal effects	Gavage/HEAST	UF = 300		6.7E-06	7.7E-05		
PESTICIDES												
4,4'-DDE	0.0E+00	0.0E+00	No	5E-04		NA/HEAST			0.0E+00	0.0E+00		
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Liver lesions	Diet/HEAST	UF = 100		0.0E+00	0.0E+00		

TABLE C.3-9
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST											6.9E-04 MAXIMUM 2.1E-04 MEAN
INORGANICS											
Aluminum	4.8E-07	8.4E-07	No	NA		HEAST			NA	NA	
Antimony	2.5E-10	3.9E-10	No	4.0E-04					6.3E-07	9.7E-07	
Arsenic	2.6E-10	6.8E-10	No	1.0E-03					2.6E-07	6.8E-07	
Barium	1.0E-09	4.1E-09	No	1.0E-03	Fetotoxicity	HEAST	UF=100		1.0E-06	4.1E-06	
Beryllium	1.4E-11	2.5E-11	No	5.0E-03					2.9E-09	4.9E-09	
Cadmium	3.4E-11	5.7E-10	No	1.0E-03					3.4E-08	5.7E-07	
Chromium	6.9E-10	1.1E-09	No	7.0E-02	Nasal mucosa atrophy	HEAST	UF=30		9.9E-09	1.5E-08	
Cobalt	6.7E-10	1.4E-09	No	NA		IRIS,HEAST			NA	NA	
Copper	2.0E-09	2.2E-08	No	NA		IRIS,HEAST			NA	NA	
Lead	2.0E-09	5.5E-08	No	NA		IRIS,HEAST			NA	NA	
Manganese	2.1E-08	6.8E-08	No	1.0E-04	Increased resp. symptoms and psycho-motor disturbanc	Occupational/HEAST	UF=900		2.1E-04	6.8E-04	
Mercury	4.7E-12	1.5E-11	No	9.0E-06	Neurotoxicity	Occupational/HEAST	UF=30		5.2E-07	1.6E-06	
Nickel	1.1E-09	2.0E-09	No	2.0E-02					5.3E-08	1.0E-07	
Selenium	2.6E-11	1.2E-10	No	NA		IRIS,HEAST			NA	NA	
Zinc	4.9E-09	1.8E-07	No	2.0E-01					2.4E-08	9.1E-07	
VOLATILES											
1,1-Dichloroethene	5.5E-13	3.5E-13	No	NA		IRIS,HEAST			NA	NA	
1,1,2,2-Tetrachloroethane	5.5E-13	4.9E-13	No	3.0E+00	Hepatotoxicity	HEAST	UF=100		1.9E-13	1.6E-13	
Benzene	5.5E-13	3.5E-13	No	NA		IRIS,HEAST			NA	NA	
Carbon disulfide	6.0E-13	7.7E-13	No	3.0E-03	Fetal toxicity	HEAST	UF=1000		2.0E-10	2.6E-10	
Chloroform	5.8E-13	5.6E-13	No	NA		IRIS,HEAST			NA	NA	
Chloromethane	1.3E-12	9.9E-13	No	NA		IRIS,HEAST			NA	NA	
Ethylbenzene	7.1E-13	1.1E-11	No	3.0E-01	Developmental toxicity	HEAST	UF=300		2.4E-12	3.6E-11	
Styrene	5.8E-13	4.9E-13	No	NA		IRIS,HEAST			NA	NA	
Tetrachloroethene	5.8E-13	4.9E-13	No	NA		IRIS,HEAST			NA	NA	
Toluene	5.8E-13	4.7E-12	No	6.0E-01	CNS effects, eyes and nose irritation	HEAST	UF=100		9.3E-13	7.9E-12	
Vinyl chloride	1.1E-12	7.7E-13	No	NA		IRIS,HEAST			NA	NA	
Xylenes	7.1E-13	8.5E-11	No	9.0E-02	CNS effects, eyes and nose irritation	HEAST	UF=100		7.9E-12	9.4E-10	
SEMIVOLATILES											
Acenaphthene	2.3E-11	1.1E-10	No	6.0E-01					3.9E-11	1.9E-10	
Acenaphthylene	1.9E-11	3.2E-11	No	4.0E-02		HEAST			4.9E-10	8.1E-10	
Anthracene	1.8E-11	7.7E-11	No	3.0E+00					6.1E-12	2.6E-11	
Benzo(a)anthracene	2.1E-11	1.3E-10	No	4.0E-02		IRIS,HEAST			5.4E-10	3.2E-09	
Benzo(a)pyrene	2.2E-11	1.1E-10	No	4.0E-02		IRIS,HEAST			5.5E-10	2.8E-09	
Benzo(b)fluoranthene	2.1E-11	9.9E-11	No	4.0E-02		IRIS,HEAST			5.3E-10	2.5E-09	
Benzo(ghi)perylene	2.2E-11	5.2E-11	No	4.0E-02		IRIS,HEAST			5.4E-10	1.3E-09	
Benzo(k)fluoranthene	1.7E-11	9.9E-11	No	4.0E-02		IRIS,HEAST			4.4E-10	2.5E-09	
Bis(2-ethylhexyl)phthalate	1.9E-11	3.0E-11	No	2.0E-02					9.7E-10	1.5E-09	
Butylbenzylphthalate	2.1E-11	3.2E-11	No	2.0E+00					1.1E-11	1.6E-11	
Chrysene	2.0E-11	1.2E-10	No	4.0E-02					5.0E-10	3.0E-09	
Dibenzofuran	2.1E-11	3.2E-11	No	4.0E-02		HEAST			5.2E-10	8.1E-10	
Dibenzo(a,h)anthracene	1.8E-11	3.2E-11	No	4.0E-02		HEAST			4.4E-10	8.1E-10	
Di-n-butylphthalate	1.7E-11	3.2E-11	No	1.0E+00		IRIS,HEAST			1.7E-11	3.2E-11	
Di-n-octylphthalate	2.1E-11	3.2E-11	No	2.0E-02					1.1E-09	1.6E-09	
Fluoranthene	3.2E-11	1.7E-10	No	4.0E-01					8.1E-11	4.2E-10	
Fluorene	2.2E-11	5.1E-11	No	4.0E-01					5.6E-11	1.3E-10	
Indeno(123cd)pyrene	2.2E-11	4.4E-11	No	4.0E-02		IRIS,HEAST			5.4E-10	1.1E-09	
Naphthalene	1.8E-11	3.0E-11	No	4.0E-02					4.6E-10	7.6E-10	
Phenanthrene	3.1E-11	3.2E-10	No	4.0E-02		HEAST			7.7E-10	8.1E-09	
Phenol	2.1E-11	3.5E-11	No	NA		HEAST					
Pyrene	3.0E-11	3.5E-10	No	3.0E-01					1.0E-10	1.2E-09	
PESTICIDES											
4,4'-DDE	0.0E+00	0.0E+00	No	5E-04		IRIS,HEAST			0.0E+00	0.0E+00	
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Liver lesions				0.0E+00	0.0E+00	

TABLE C.4-1
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	ABSORBED DOSE NONCANCER MEAN (mg/kg/day)	ABSORBED DOSE CANCER MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER MAX. (mg/kg/day)	ABSORBED DOSE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	FIAF (unitless)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8007.26	10600.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.87	5.60	1.0E-06	500	0.00	250	25	70.0	9125	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.12	8.90	1.0E-06	500	0.00	250	25	70.0	9125	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.30	28.30	1.0E-06	500	0.00	250	25	70.0	9125	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.27	0.48	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.40	0.94	1.0E-06	500	0.00	250	25	70.0	9125	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.03	18.80	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.02	20.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20.76	44.30	1.0E-06	500	0.00	250	25	70.0	9125	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	25.64	77.80	1.0E-06	500	0.00	250	25	70.0	9125	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	253.05	750.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.08	0.17	1.0E-06	500	0.00	250	25	70.0	9125	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10.88	25.60	1.0E-06	500	0.00	250	25	70.0	9125	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.25	0.53	1.0E-06	500	0.00	250	25	70.0	9125	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	53.50	142.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Chloromethane	2.3E-08	8.3E-09	2.9E-08	1.0E-08	0.010	0.012	1.0E-06	500	0.50	250	25	70.0	9125	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Tetrachloroethene	6.9E-08	2.4E-09	4.9E-09	1.7E-09	0.0028	0.0020	1.0E-06	500	0.50	250	25	70.0	9125	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
SEMIVOLATILES														
Acenaphthene	1.7E-07	6.1E-08	2.3E-07	8.2E-08	0.697	0.940	1.0E-06	500	0.05	250	25	70.0	9125	25550
Acenaphthylene	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Anthracene	1.4E-07	5.0E-08	3.7E-07	1.3E-07	0.576	1.500	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)anthracene	1.1E-07	3.9E-08	8.1E-07	2.9E-07	0.452	3.300	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)pyrene	1.0E-07	3.7E-08	6.6E-07	2.4E-07	0.421	2.700	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(b)fluoranthene	1.0E-07	3.7E-08	6.8E-07	2.4E-07	0.424	2.800	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(ghi)perylene	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(k)fluoranthene	9.8E-08	3.5E-08	7.6E-07	2.7E-07	0.400	3.100	1.0E-06	500	0.05	250	25	70.0	9125	25550
Bis(2ethylhexyl)phthalate	1.3E-07	4.6E-08	1.4E-07	5.2E-08	0.525	0.580	1.0E-06	500	0.05	250	25	70.0	9125	25550
Butylbenzylphthalate	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Chrysene	1.1E-07	3.8E-08	6.8E-07	2.4E-07	0.437	2.800	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dibenzofuran	1.2E-07	4.4E-08	1.6E-07	5.7E-08	0.501	0.650	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dibenzo(a,h)anthracene	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Di-n-butylphthalate	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Di-n-octylphthalate	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluoranthene	8.7E-08	3.1E-08	2.0E-06	7.0E-07	0.357	8.000	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluorene	1.4E-07	4.9E-08	2.9E-07	1.0E-07	0.555	1.200	1.0E-06	500	0.05	250	25	70.0	9125	25550
Indeno(123cd)pyrene	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Naphthalene	1.7E-07	6.1E-08	1.3E-07	4.5E-08	0.700	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Phenanthrene	1.2E-07	4.3E-08	1.8E-06	6.3E-07	0.489	7.200	1.0E-06	500	0.05	250	25	70.0	9125	25550
Phenol	1.5E-07	5.3E-08	1.3E-07	4.5E-08	0.610	0.520	1.0E-06	500	0.05	250	25	70.0	9125	25550
Pyrene	1.1E-07	3.8E-08	1.4E-06	5.0E-07	0.433	5.700	1.0E-06	500	0.05	250	25	70.0	9125	25550
PESTICIDES														
4,4'-DDE	1.4E-09	5.1E-10	2.0E-09	7.1E-10	0.0059	0.0081	1.0E-06	500	0.05	250	25	70.0	9125	25550
4,4'-DDT	1.2E-09	4.4E-10	2.2E-09	7.7E-10	0.0051	0.0088	1.0E-06	500	0.05	250	25	70.0	9125	25550

TABLE C.4-2
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL AND DUST
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR (mg/dy)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/yr)	ED (yrs)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	3.9E-03	1.4E-03	5.2E-03	1.9E-03	8007.26	10600.00	50	1.0E-06	250	25	1.0	70.0	9125	25550
Antimony	1.4E-06	5.0E-07	2.7E-06	9.8E-07	2.87	5.60	50	1.0E-06	250	25	1.0	70.0	9125	25550
Arsenic	2.5E-06	8.9E-07	4.4E-06	1.6E-06	5.12	8.90	50	1.0E-06	250	25	1.0	70.0	9125	25550
Barium	9.4E-06	3.4E-06	1.4E-05	4.9E-06	19.30	28.30	50	1.0E-06	250	25	1.0	70.0	9125	25550
Beryllium	1.3E-07	4.6E-08	2.3E-07	8.4E-08	0.27	0.48	50	1.0E-06	250	25	1.0	70.0	9125	25550
Cadmium	2.0E-07	7.1E-08	4.6E-07	1.6E-07	0.40	0.94	50	1.0E-06	250	25	1.0	70.0	9125	25550
Chromium	6.4E-06	2.3E-06	9.2E-06	3.3E-06	13.03	18.80	50	1.0E-06	250	25	1.0	70.0	9125	25550
Cobalt	3.9E-06	1.4E-06	9.8E-06	3.5E-06	8.02	20.00	50	1.0E-06	250	25	1.0	70.0	9125	25550
Copper	1.0E-05	3.6E-06	2.2E-05	7.7E-06	20.76	44.30	50	1.0E-06	250	25	1.0	70.0	9125	25550
Lead	3.8E-06	1.3E-06	1.1E-05	4.1E-06	25.84	77.80	50	1.0E-06	250	25	0.3	70.0	9125	25550
Manganese	1.2E-04	4.4E-05	3.7E-04	1.3E-04	253.05	750.00	50	1.0E-06	250	25	1.0	70.0	9125	25550
Mercury	3.7E-08	1.3E-08	8.3E-08	3.0E-08	0.08	0.17	50	1.0E-06	250	25	1.0	70.0	9125	25550
Nickel	5.3E-06	1.9E-06	1.3E-05	4.5E-06	10.88	25.60	50	1.0E-06	250	25	1.0	70.0	9125	25550
Selenium	1.2E-07	4.4E-08	2.6E-07	9.3E-08	0.25	0.53	50	1.0E-06	250	25	1.0	70.0	9125	25550
Zinc	2.6E-05	9.3E-06	6.9E-05	2.5E-05	53.50	142.00	50	1.0E-06	250	25	1.0	70.0	9125	25550
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Chloromethane	4.7E-09	1.7E-09	5.9E-09	2.1E-09	0.0095	0.0120	50	1.0E-06	250	25	1.0	70.0	9125	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Tetrachloroethene	1.4E-09	4.9E-10	9.8E-10	3.5E-10	0.0028	0.0020	50	1.0E-06	250	25	1.0	70.0	9125	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.0	70.0	9125	25550
SEMIVOLATILES														
Acenaphthene	3.4E-07	1.2E-07	4.6E-07	1.6E-07	0.70	0.94	50	1.0E-06	250	25	1.0	70.0	9125	25550
Acenaphthylene	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Anthracene	2.8E-07	1.0E-07	7.3E-07	2.6E-07	0.58	1.50	50	1.0E-06	250	25	1.0	70.0	9125	25550
Benzo(a)anthracene	2.2E-07	7.9E-08	1.6E-06	5.8E-07	0.45	3.30	50	1.0E-06	250	25	1.0	70.0	9125	25550
Benzo(a)pyrene	2.1E-07	7.4E-08	1.3E-06	4.7E-07	0.42	2.70	50	1.0E-06	250	25	1.0	70.0	9125	25550
Benzo(b)fluoranthene	2.1E-07	7.4E-08	1.4E-06	4.9E-07	0.42	2.80	50	1.0E-06	250	25	1.0	70.0	9125	25550
Benzo(ghi)perylene	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Benzo(k)fluoranthene	2.0E-07	7.0E-08	1.5E-06	5.4E-07	0.40	3.10	50	1.0E-06	250	25	1.0	70.0	9125	25550
Bis(2ethylhexyl)phthalate	2.6E-07	9.2E-08	2.9E-07	1.0E-07	0.52	0.59	50	1.0E-06	250	25	1.0	70.0	9125	25550
Butylbenzylphthalate	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Chrysene	2.1E-07	7.6E-08	1.4E-06	4.9E-07	0.44	2.80	50	1.0E-06	250	25	1.0	70.0	9125	25550
Dibenzofuran	2.5E-07	8.8E-08	3.2E-07	1.1E-07	0.50	0.65	50	1.0E-06	250	25	1.0	70.0	9125	25550
Dibenzo(a,h)anthracene	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Di-n-butylphthalate	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Di-n-octylphthalate	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Fluoranthene	1.7E-07	6.2E-08	3.9E-06	1.4E-06	0.36	8.00	50	1.0E-06	250	25	1.0	70.0	9125	25550
Fluorene	2.7E-07	9.7E-08	5.9E-07	2.1E-07	0.56	1.20	50	1.0E-06	250	25	1.0	70.0	9125	25550
Indeno(123cd)pyrene	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Naphthalene	3.4E-07	1.2E-07	2.5E-07	9.1E-08	0.70	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Phenanthrene	2.4E-07	8.5E-08	3.5E-06	1.3E-06	0.49	7.20	50	1.0E-06	250	25	1.0	70.0	9125	25550
Phenol	3.0E-07	1.1E-07	2.5E-07	9.1E-08	0.61	0.52	50	1.0E-06	250	25	1.0	70.0	9125	25550
Pyrene	2.1E-07	7.6E-08	2.8E-06	1.0E-06	0.43	5.70	50	1.0E-06	250	25	1.0	70.0	9125	25550
PESTICIDES														
4,4'-DDE	8.6E-10	3.1E-10	1.2E-09	4.2E-10	0.01	0.0081	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDT	7.5E-10	2.7E-10	1.3E-09	4.6E-10	0.01	0.0088	50	1.0E-06	250	25	0.30	70.0	9125	25550

TABLE C.4-3
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/L)	CONC. IN WATER MAX. (mg/L)	IR (L/dy)	EF (days/yr)	ED (yrs)	BW (kg)	AT NONCANCE (days)	AT CANCER (days)
INORGANICS												
Aluminum	1.27E-01	4.54E-02	4.36E-01	1.56E-01	12.99	44.60	1	250	25	70	9125	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1	250	25	70	9125	25550
Arsenic	4.13E-05	1.48E-05	1.62E-04	5.80E-05	0.004	0.017	1	250	25	70	9125	25550
Barium	9.91E-04	3.54E-04	5.57E-03	1.99E-03	0.101	0.569	1	250	25	70	9125	25550
Beryllium	6.70E-06	2.39E-06	2.35E-05	8.39E-06	0.001	0.002	1	250	25	70	9125	25550
Cadmium	2.95E-05	1.05E-05	4.77E-04	1.71E-04	0.003	0.049	1	250	25	70	9125	25550
Chromium	2.22E-04	7.93E-05	4.60E-04	1.64E-04	0.02	0.05	1	250	25	70	9125	25550
Cobalt	2.57E-04	9.17E-05	4.89E-04	1.75E-04	0.03	0.05	1	250	25	70	9125	25550
Copper	6.18E-04	2.21E-04	1.01E-02	3.60E-03	0.06	1.03	1	250	25	70	9125	25550
Lead	1.10E-03	3.92E-04	4.03E-02	1.44E-02	0.11	4.12	1	250	25	70	9125	25550
Manganese	4.36E-02	1.56E-02	8.53E-02	3.05E-02	4.45	8.72	1	250	25	70	9125	25550
Mercury	3.00E-06	1.07E-06	2.05E-05	7.34E-06	0.00031	0.00210	1	250	25	70	9125	25550
Nickel	3.82E-04	1.36E-04	7.97E-04	2.85E-04	0.04	0.08	1	250	25	70	9125	25550
Selenium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1	250	25	70	9125	25550
Zinc	4.36E-03	1.56E-03	1.21E-01	4.33E-02	0.45	12.40	1	250	25	70	9125	25550
VOLATILES												
1,1-Dichloroethene	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
1,1,2,2-Tetrachloroethane	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
Benzene	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
Carbon disulfide	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
Chloroform	4.26E-05	1.52E-05	2.45E-04	8.74E-05	0.0044	0.0250	1	250	25	70	9125	25550
Chloromethane	8.91E-05	3.18E-05	4.89E-04	1.75E-04	0.0091	0.0500	1	250	25	70	9125	25550
Ethylbenzene	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
Styrene	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
Tetrachloroethene	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
Toluene	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
Vinyl chloride	8.91E-05	3.18E-05	4.89E-04	1.75E-04	0.0091	0.0500	1	250	25	70	9125	25550
Xylenes	4.45E-05	1.59E-05	2.45E-04	8.74E-05	0.0046	0.0250	1	250	25	70	9125	25550
SEMIVOLATILES												
Acenaphthene	6.40E-05	2.29E-05	2.35E-04	8.39E-05	0.0065	0.0240	1	250	25	70	9125	25550
Acenaphthylene	6.46E-05	2.31E-05	9.78E-05	3.49E-05	0.0066	0.0100	1	250	25	70	9125	25550
Anthracene	6.32E-05	2.26E-05	9.78E-05	3.49E-05	0.0065	0.0100	1	250	25	70	9125	25550
Benzo(a)anthracene	5.07E-05	1.81E-05	9.78E-05	3.49E-05	0.0052	0.0100	1	250	25	70	9125	25550
Benzo(a)pyrene	4.68E-05	1.67E-05	9.78E-05	3.49E-05	0.0048	0.0100	1	250	25	70	9125	25550
Benzo(b)fluoranthene	4.07E-05	1.45E-05	9.78E-05	3.49E-05	0.0042	0.0100	1	250	25	70	9125	25550
Benzo(ghi)perylene	5.62E-05	2.01E-05	9.78E-05	3.49E-05	0.0057	0.0100	1	250	25	70	9125	25550
Benzo(k)fluoranthene	5.62E-05	2.01E-05	9.78E-05	3.49E-05	0.0057	0.0100	1	250	25	70	9125	25550
Bis(2ethylhexyl)phthalate	5.82E-05	2.08E-05	9.78E-05	3.49E-05	0.0059	0.0100	1	250	25	70	9125	25550
Butylbenzylphthalate	5.62E-05	2.01E-05	9.78E-05	3.49E-05	0.0057	0.0100	1	250	25	70	9125	25550
Chrysene	5.37E-05	1.92E-05	9.78E-05	3.49E-05	0.0055	0.0100	1	250	25	70	9125	25550
Dibenzofuran	4.68E-05	1.67E-05	9.78E-05	3.49E-05	0.0048	0.0100	1	250	25	70	9125	25550
Dibenzo(a,h)anthracene	5.62E-05	2.01E-05	9.78E-05	3.49E-05	0.0057	0.0100	1	250	25	70	9125	25550
Di-n-butylphthalate	6.46E-05	2.31E-05	9.78E-05	3.49E-05	0.0066	0.0100	1	250	25	70	9125	25550
Di-n-octylphthalate	5.62E-05	2.01E-05	9.78E-05	3.49E-05	0.0057	0.0100	1	250	25	70	9125	25550
Fluoranthene	5.83E-05	2.08E-05	9.78E-05	3.49E-05	0.0060	0.0100	1	250	25	70	9125	25550
Fluorene	7.49E-05	2.67E-05	2.05E-04	7.34E-05	0.0077	0.0210	1	250	25	70	9125	25550
Indeno(123cd)pyrene	5.62E-05	2.01E-05	9.78E-05	3.49E-05	0.0057	0.0100	1	250	25	70	9125	25550
Naphthalene	5.62E-05	2.01E-05	9.78E-05	3.49E-05	0.0057	0.0100	1	250	25	70	9125	25550
Phenanthrene	8.68E-05	3.10E-05	4.31E-04	1.54E-04	0.0089	0.0440	1	250	25	70	9125	25550
Phenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1	250	25	70	9125	25550
Pyrene	7.63E-05	2.72E-05	2.25E-04	8.04E-05	0.0078	0.0230	1	250	25	70	9125	25550
PESTICIDES												
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1	250	25	70	9125	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1	250	25	70	9125	25550

TABLE C.4-4
SCENARIO 4
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK	TOTAL RISK	
										1.4E-09	3.1E-03	MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										1.2E-09	1.5E-03	MEAN
VOLATILES												
1,1-Dichloroethene	0.0E+00	0.0E+00	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	0.0E+00	0.0E+00			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00			
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00			
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00			
Chloromethane	8.3E-09	1.0E-08	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.1E-10	1.4E-10			
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00			
Tetrachloroethene	2.4E-09	1.7E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	1.2E-10	8.9E-11			
Toluene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Vinyl chloride	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Xylenes	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
SEMIVOLATILES												
Acenaphthene	6.1E-08	8.2E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00			
Acenaphthylene	5.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Anthracene	5.0E-08	1.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(a)anthracene	3.9E-08	2.9E-07	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00			
Benzo(a)pyrene	3.7E-08	2.4E-07	No	NA	B2	Lung, stomach	IRIS	0.0E+00	0.0E+00			
Benzo(b)fluoranthene	3.7E-08	2.4E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00			
Benzo(ghi)perylene	5.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Benzo(k)fluoranthene	3.5E-08	2.7E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00			
Bis(2ethylhexyl)phthalate	4.6E-08	5.2E-08	No	1.40E-02	B2	Liver	IRIS	6.4E-10	7.2E-10			
Butylbenzylphthalate	5.3E-08	4.5E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00			
Chrysene	3.8E-08	2.4E-07	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00			
Dibenzofuran	4.4E-08	5.7E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Dibenzo(a,h)anthracene	5.3E-08	4.5E-08	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00			
Di-n-butylphthalate	5.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Di-n-octylphthalate	5.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluoranthene	3.1E-08	7.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Fluorene	4.9E-08	1.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Indeno(123cd)pyrene	5.3E-08	4.5E-08	No	NA	B2	Lung, skin	IRIS	0.0E+00	0.0E+00			
Naphthalene	6.1E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenanthrene	4.3E-08	6.3E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Phenol	5.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
Pyrene	3.8E-08	5.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00			
PESTICIDES												
4,4'-DDE	5.1E-10	7.1E-10	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.7E-10	2.4E-10			
4,4'-DDT	4.4E-10	7.7E-10	No	3.4E-01	B2	Liver tumor	Diet/IRIS	1.5E-10	2.6E-10			

TABLE C.4-5
SCENARIO 4
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										3.5E-05 MAXIMUM 8.5E-06 MEAN
INORGANICS										
Aluminum	1.4E-03	1.9E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Antimony	5.0E-07	9.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Arsenic	8.9E-07	1.8E-06	No	1.75E+00	A	Skin	IRIS	1.6E-06	2.7E-06	
Barium	3.4E-06	4.9E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Beryllium	4.8E-08	8.4E-08	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	2.1E-07	3.6E-07	
Cadmium	7.1E-08	1.6E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chromium	2.3E-06	3.3E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Cobalt	1.4E-08	3.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Copper	3.6E-06	7.7E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Lead	1.3E-06	4.1E-06	No	NA	B2	Renal tumors	NA/IRIS,HEAST	0.0E+00	0.0E+00	
Manganese	4.4E-05	1.3E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Mercury	1.3E-08	3.0E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Nickel	1.9E-06	4.5E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Selenium	4.4E-08	9.3E-08	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Zinc	9.3E-06	2.5E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
VOLATILES										
1,1-Dichloroethene	0.0E+00	0.0E+00	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	0.0E+00	0.0E+00	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00	
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00	
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00	
Chloromethane	1.7E-09	2.1E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	2.2E-11	2.7E-11	
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00	
Tetrachloroethene	4.9E-10	3.5E-10	No	5.10E-02	B2	Liver	Gavage/HEAST	2.5E-11	1.8E-11	
Toluene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Vinyl chloride	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Xylenes	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
SEMIVOLATILES										
Acenaphthene	1.2E-07	1.8E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Acenaphthylene	1.1E-07	9.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Anthracene	1.0E-07	2.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Benzo(a)anthracene	7.9E-08	5.8E-07	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	9.1E-07	6.6E-06	
Benzo(a)pyrene	7.4E-08	4.7E-07	No	1.15E+01	B2	Lung, stomach	IRIS	8.5E-07	5.4E-06	
Benzo(b)fluoranthene	7.4E-08	4.9E-07	No	1.15E+01	B2	Lung, thorax, skin	IRIS	8.5E-07	5.6E-06	
Benzo(ghi)perylene	1.1E-07	9.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Benzo(k)fluoranthene	7.0E-08	5.4E-07	No	1.15E+01	B2	Lung, thorax, skin	IRIS	8.0E-07	6.2E-06	
Bis(2ethylhexyl)phthalate	9.2E-08	1.0E-07	No	1.40E-02	B2	Liver	IRIS	1.3E-09	1.4E-09	
Butylbenzylphthalate	1.1E-07	9.1E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	
Chrysene	7.6E-08	4.9E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	8.8E-07	5.6E-06	
Dibenzofuran	8.8E-08	1.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Dibenzo(a,h)anthracene	1.1E-07	9.1E-08	No	1.15E+01	B2	Lung, Mammary	IRIS	1.2E-06	1.0E-06	
Di-n-butylphthalate	1.1E-07	9.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Di-n-octylphthalate	1.1E-07	9.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Fluoranthene	6.2E-08	1.4E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Fluorene	9.7E-08	2.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Indeno(123cd)pyrene	1.1E-07	9.1E-08	No	1.15E+01	B2	Lung, skin	IRIS	1.2E-06	1.0E-06	
Naphthalene	1.2E-07	9.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Phenanthrene	6.5E-08	1.3E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Phenol	1.1E-07	9.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Pyrene	7.6E-08	1.0E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
PESTICIDES										
4,4'-DDE	3.1E-10	4.2E-10	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.0E-10	1.4E-10	
4,4'-DDT	2.7E-10	4.6E-10	No	3.4E-01	B2	Liver tumor	Diet/IRIS	9.1E-11	1.6E-10	

TABLE C.4-6
SCENARIO 4
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK 3.0E-03 MAXIMUM 1.5E-03 MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER										
INORGANICS										
Aluminum	4.5E-02	1.6E-01	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Antimony	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Arsenic	1.5E-05	5.8E-05	No	1.75E+00	A	Skin	IRIS	2.6E-05	1.0E-04	
Barium	3.5E-04	2.0E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Beryllium	2.4E-06	8.4E-06	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	1.0E-05	3.6E-05	
Cadmium	1.1E-05	1.7E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chromium	7.9E-05	1.6E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Cobalt	9.2E-05	1.7E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Copper	2.2E-04	3.6E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Lead	3.9E-04	1.4E-02	No	NA	B2	Renal tumors	NA/IRIS,HEAST	0.0E+00	0.0E+00	
Manganese	1.6E-02	3.0E-02	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Mercury	1.1E-06	7.3E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Nickel	1.4E-04	2.8E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Selenium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Zinc	1.6E-03	4.3E-02	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
VOLATILES										
1,1-Dichloroethene	1.6E-05	8.7E-05	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	9.5E-06	5.2E-05	
1,1,2,2-Tetrachloroethane	1.6E-05	8.7E-05	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	3.2E-06	1.7E-05	
Benzene	1.6E-05	8.7E-05	No	2.90E-02	A	Leukemia	Occupational/IRIS	4.6E-07	2.5E-06	
Carbon disulfide	1.6E-05	8.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Chloroform	1.5E-05	8.7E-05	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	9.3E-08	5.3E-07	
Chloromethane	3.2E-05	1.7E-04	No	1.30E-02	C	Kidney	Inhalation/HEAST	4.1E-07	2.3E-06	
Ethylbenzene	1.6E-05	8.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Styrene	1.6E-05	8.7E-05	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	4.8E-07	2.6E-06	
Tetrachloroethene	1.6E-05	8.7E-05	No	5.10E-02	B2	Liver	Gavage/HEAST	8.1E-07	4.5E-06	
Toluene	1.6E-05	8.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Vinyl chloride	3.2E-05	1.7E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Xylenes	1.6E-05	8.7E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
SEMIVOLATILES										
Acenaphthene	2.3E-05	8.4E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	
Acenaphthylene	2.3E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Anthracene	2.3E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Benzo(a)anthracene	1.8E-05	3.5E-05	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	2.1E-04	4.0E-04	
Benzo(a)pyrene	1.7E-05	3.5E-05	No	1.15E+01	B2	Lung, stomach	IRIS	1.9E-04	4.0E-04	
Benzo(b)fluoranthene	1.5E-05	3.5E-05	No	1.15E+01	B2	Lung, thorax, skin	IRIS	1.7E-04	4.0E-04	
Benzo(ghi)perylene	2.0E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Benzo(k)fluoranthene	2.0E-05	3.5E-05	No	1.15E+01	B2	Lung, thorax, skin	IRIS	2.3E-04	4.0E-04	
Bis(2ethylhexyl)phthalate	2.1E-05	3.5E-05	No	1.40E-02	B2	Liver	IRIS	2.9E-07	4.9E-07	
Butylbenzylphthalate	2.0E-05	3.5E-05	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	
Chrysene	1.9E-05	3.5E-05	No	1.15E+01	B2	Malignant lymphoma	IRIS	2.2E-04	4.0E-04	
Dibenzofuran	1.7E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Dibenzo(a,h)anthracene	2.0E-05	3.5E-05	No	1.15E+01	B2	Lung, Mammary	IRIS	2.3E-04	4.0E-04	
Di-n-butylphthalate	2.3E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Di-n-octylphthalate	2.0E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Fluoranthene	2.1E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Fluorene	2.7E-05	7.3E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Indeno(123cd)pyrene	2.0E-05	3.5E-05	No	1.15E+01	B2	Lung, skin	IRIS	2.3E-04	4.0E-04	
Naphthalene	2.0E-05	3.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Phenanthrene	3.1E-05	1.5E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Phenol	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
Pyrene	2.7E-05	8.0E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	
PESTICIDES										
4,4'-DDE	0.0E+00	0.0E+00	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	
4,4'-DDT	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00	

TABLE C.4-7
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIF. FACTR.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)	PATHWAY HAZARD INDEX (HI)
												1.7E-03	3.1E+00 MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												4.2E-04	8.2E-01 MEAN
VOLATILES													
1,1-Dichloroethene	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST						
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST						
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00		
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00		
Chloromethane	2.3E-08	2.9E-08	No	NA			NA/IRIS,HEAST						
Ethylbenzene	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00		
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00		
Tetrachloroethene	6.9E-09	4.9E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	6.9E-07	4.9E-07		
Toluene	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00		
Vinyl chloride	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00		
Xylenes	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00		
SEMIVOLATILES													
Acenaphthene	1.7E-07	2.3E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	2.8E-06	3.8E-06		
Acenaphthylene	1.5E-07	1.3E-07	No	4E-03			NA/IRIS,HEAST			3.7E-05	3.2E-05		
Anthracene	1.4E-07	3.7E-07	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	4.7E-07	1.2E-06		
Benzo(a)anthracene	1.1E-07	8.1E-07	No	4E-03			IRIS,HEAST			2.8E-05	2.0E-04		
Benzo(a)pyrene	1.0E-07	6.6E-07	No	4E-03			IRIS,HEAST			2.6E-05	1.7E-04		
Benzo(b)fluoranthene	1.0E-07	6.8E-07	No	4E-03			IRIS,HEAST			2.6E-05	1.7E-04		
Benzo(ghi)perylene	1.5E-07	1.3E-07	No	4E-03			IRIS,HEAST			3.7E-05	3.2E-05		
Benzo(k)fluoranthene	9.6E-08	7.6E-07	No	4E-03			IRIS,HEAST			2.4E-05	1.9E-04		
Bis(2ethylhexyl)phthalate	1.3E-07	1.4E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	6.4E-06	7.2E-06		
Butylbenzylphthalate	1.5E-07	1.3E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	7.5E-07	6.4E-07		
Chrysene	1.1E-07	6.8E-07	No	4E-03			NA/HEAST			2.7E-05	1.7E-04		
Dibenzofuran	1.2E-07	1.6E-07	No	4E-03			NA/HEAST	1000		3.1E-05	4.0E-05		
Dibenzo(a,h)anthracene	1.5E-07	1.3E-07	No	4E-03			IRIS,HEAST			3.7E-05	3.2E-05		
Di-n-butylphthalate	1.5E-07	1.3E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	1.5E-06	1.3E-06		
Di-n-octylphthalate	1.5E-07	1.3E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		7.5E-06	6.4E-06		
Fluoranthene	8.7E-08	2.0E-06	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	2.2E-06	4.9E-05		
Fluorene	1.4E-07	2.9E-07	No	4E-02	Low		Gavage/IRIS	3000	1	3.4E-06	7.3E-06		
Indeno(123cd)pyrene	1.5E-07	1.3E-07	No	4E-03			NA/IRIS,HEAST			3.7E-05	3.2E-05		
Naphthalene	1.7E-07	1.3E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		4.3E-05	3.2E-05		
Phenanthrene	1.2E-07	1.8E-06	No	4E-03			NA/HEAST			3.0E-05	4.4E-04		
Phenol	1.5E-07	1.3E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	2.5E-07	2.1E-07		
Pyrene	1.1E-07	1.4E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	3.5E-06	4.6E-05		
PESTICIDES													
4,4'-DDE	1.4E-09	2.0E-09	No	5E-04			NA/IRIS,HEAST			2.9E-06	4.0E-06		
4,4'-DDT	1.2E-09	2.2E-09	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	2.5E-06	4.3E-06		

TABLE C.4-8
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)
												2.2E-02 MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												1.0E-02 MEAN
INORGANICS												
Aluminum	3.9E-03	5.2E-03	No	NA			NA/HEAST					
Antimony	1.4E-06	2.7E-06	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	3.5E-03	6.8E-03	
Arsenic	2.5E-06	4.4E-06	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		2.5E-03	4.4E-03	
Barium	9.4E-06	1.4E-05	No	7E-02	Medium	None observed	Water/IRIS	3	1	1.3E-04	2.0E-04	
Beryllium	1.3E-07	2.3E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	2.7E-05	4.7E-05	
Cadmium	2.0E-07	4.6E-07	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	2.0E-04	4.6E-04	
Chromium	6.4E-06	9.2E-06	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	1.3E-03	1.8E-03	
Cobalt	3.9E-06	9.8E-06	No	NA			NA/IRIS,HEAST					
Copper	1.0E-05	2.2E-05	No	4E-02		Local GI irritation	HEAST			2.5E-04	5.4E-04	
Lead	3.8E-06	1.1E-05	No	NA		Neurobehavioral effects	NA/IRIS,HEAST					
Manganese	1.2E-04	3.7E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	1.2E-03	3.7E-03	
Mercury	3.7E-08	8.3E-08	No	3E-04		Kidney effects	Oral/HEAST	1000		1.2E-04	2.8E-04	
Nickel	5.3E-06	1.3E-05	No	NA			NA/IRIS,HEAST					
Selenium	1.2E-07	2.6E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	2.5E-05	5.2E-05	
Zinc	2.6E-05	6.9E-05	No	2E-01		Anemia	Therapeutic/HEAST	10		1.3E-04	3.5E-04	
VOLATILES												
1,1-Dichloroethene	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST					
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST					
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00	
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00	
Chloromethane	4.7E-09	5.9E-09	No	NA			NA/IRIS,HEAST					
Ethylbenzene	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00	
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00	
Tetrachloroethene	1.4E-09	9.8E-10	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	1.4E-07	9.8E-08	
Toluene	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00	
Vinyl chloride	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00	
Xylenes	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00	
SEMIVOLATILES												
Acenaphthene	3.4E-07	4.6E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	5.7E-06	7.7E-06	
Acenaphthylene	3.0E-07	2.5E-07	No	4E-03			NA/IRIS,HEAST			7.5E-05	6.4E-05	
Anthracene	2.6E-07	7.3E-07	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	9.4E-07	2.4E-06	
Benzo(a)anthracene	2.2E-07	1.6E-06	No	4E-03			IRIS,HEAST			5.5E-05	4.0E-04	
Benzo(a)pyrene	2.1E-07	1.3E-06	No	4E-03			IRIS,HEAST			5.2E-05	3.3E-04	
Benzo(b)fluoranthene	2.1E-07	1.4E-06	No	4E-03			IRIS,HEAST			5.2E-05	3.4E-04	
Benzo(ghi)perylene	3.0E-07	2.5E-07	No	4E-03			IRIS,HEAST			7.5E-05	6.4E-05	
Benzo(k)fluoranthene	2.0E-07	1.5E-06	No	4E-03			IRIS,HEAST			4.9E-05	3.8E-04	
Bis(2ethylhexyl)phthalate	2.6E-07	2.9E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.3E-05	1.4E-05	
Butylbenzylphthalate	3.0E-07	2.5E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	1.5E-06	1.3E-06	
Chrysene	2.1E-07	1.4E-06	No	4E-03			NA/HEAST			5.3E-05	3.4E-04	
Dibenzofuran	2.5E-07	3.2E-07	No	4E-03			NA/HEAST	1000		6.1E-05	8.0E-05	
Dibenzo(a,h)anthracene	3.0E-07	2.5E-07	No	4E-03			IRIS,HEAST			7.5E-05	6.4E-05	
Di-n-butylphthalate	3.0E-07	2.5E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	3.0E-06	2.5E-06	
Di-n-octylphthalate	3.0E-07	2.5E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		1.5E-05	1.3E-05	
Fluoranthene	1.7E-07	3.9E-06	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	4.4E-06	9.8E-05	
Fluorene	2.7E-07	5.9E-07	No	4E-02	Low		Gavage/IRIS	3000	1	6.8E-06	1.5E-05	
Indeno(123cd)pyrene	3.0E-07	2.5E-07	No	4E-03			NA/IRIS,HEAST			7.5E-05	6.4E-05	
Naphthalene	3.4E-07	2.5E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		8.6E-05	6.4E-05	
Phenanthrene	2.4E-07	3.5E-06	No	4E-03			NA/HEAST			6.0E-05	8.8E-04	
Phenol	3.0E-07	2.5E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	5.0E-07	4.2E-07	
Pyrene	2.1E-07	2.8E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	7.1E-06	9.3E-05	
PESTICIDES												
4,4'-DDE	6.6E-10	1.2E-09	No	5E-04			NA/IRIS,HEAST			1.7E-06	2.4E-06	
4,4'-DDT	7.5E-10	1.3E-09	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.5E-06	2.6E-06	

TABLE C.4-9
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)
												3.1E+00 MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER												8.1E-01 MEAN
INORGANICS												
Aluminum	1.3E-01	4.4E-01	No	NA			NA/HEAST					
Antimony	0.0E+00	0.0E+00	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	0.0E+00	0.0E+00	
Arsenic	4.1E-05	1.6E-04	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		4.1E-02	1.6E-01	
Barium	9.9E-04	5.6E-03	No	7E-02	Medium	None observed	Water/IRIS	3	1	1.4E-02	8.0E-02	
Beryllium	6.7E-06	2.3E-05	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	1.3E-03	4.7E-03	
Cadmium	2.9E-05	4.6E-04	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	2.9E-02	4.6E-01	
Chromium	2.2E-04	4.6E-04	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	4.4E-02	9.2E-02	
Cobalt	2.6E-04	4.9E-04	No	NA			NA/IRIS,HEAST					
Copper	6.2E-04	1.0E-02	No	4E-02		Local GI irritation	HEAST			1.5E-02	2.5E-01	
Lead	1.1E-03	4.0E-02	No	NA		Neurobehavioral effects	NA/IRIS,HEAST					
Manganese	4.4E-02	8.5E-02	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	4.4E-01	8.5E-01	
Mercury	3.0E-06	2.1E-05	No	3E-04		Kidney effects	Oral/HEAST	1000		1.0E-02	6.8E-02	
Nickel	3.8E-04	8.0E-04	No	NA			NA/IRIS,HEAST					
Selenium	0.0E+00	0.0E+00	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	0.0E+00	0.0E+00	
Zinc	4.4E-03	1.2E-01	No	2E-01		Anemia	Therapeutic/HEAST	10		2.2E-02	6.1E-01	
VOLATILES												
1,1-Dichloroethene	4.5E-05	2.4E-04	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	4.9E-03	2.7E-02	
1,1,2,2-Tetrachloroethane	4.5E-05	2.4E-04	No	NA			NA/IRIS,HEAST					
Benzene	4.5E-05	2.4E-04	No	NA			NA/IRIS,HEAST					
Carbon disulfide	4.5E-05	2.4E-04	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	4.5E-04	2.4E-03	
Chloroform	4.3E-05	2.4E-04	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	4.3E-03	2.4E-02	
Chloromethane	8.9E-05	4.9E-04	No	NA			NA/IRIS,HEAST					
Ethylbenzene	4.5E-05	2.4E-04	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	4.5E-04	2.4E-03	
Styrene	4.5E-05	2.4E-04	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	2.2E-04	1.2E-03	
Tetrachloroethene	4.5E-05	2.4E-04	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	4.5E-03	2.4E-02	
Toluene	4.5E-05	2.4E-04	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	2.2E-04	1.2E-03	
Vinyl chloride	8.9E-05	4.9E-04	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		8.9E-05	4.9E-04	
Xylenes	4.5E-05	2.4E-04	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	2.2E-05	1.2E-04	
SEMIVOLATILES												
Acenaphthene	6.4E-05	2.3E-04	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	1.1E-03	3.9E-03	
Acenaphthylene	6.5E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.6E-02	2.4E-02	
Anthracene	6.3E-05	9.8E-05	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	2.1E-04	3.3E-04	
Benzo(a)anthracene	5.1E-05	9.8E-05	No	4E-03			IRIS,HEAST			1.3E-02	2.4E-02	
Benzo(a)pyrene	4.7E-05	9.8E-05	No	4E-03			IRIS,HEAST			1.2E-02	2.4E-02	
Benzo(b)fluoranthene	4.1E-05	9.8E-05	No	4E-03			IRIS,HEAST			1.0E-02	2.4E-02	
Benzo(ghi)perylene	5.6E-05	9.8E-05	No	4E-03			IRIS,HEAST			1.4E-02	2.4E-02	
Benzo(k)fluoranthene	5.6E-05	9.8E-05	No	4E-03			IRIS,HEAST			1.4E-02	2.4E-02	
Bis(2ethylhexyl)phthalate	5.8E-05	9.8E-05	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.9E-03	4.9E-03	
Butylbenzylphthalate	5.6E-05	9.8E-05	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	2.8E-04	4.9E-04	
Chrysene	5.4E-05	9.8E-05	No	4E-03			NA/HEAST			1.3E-02	2.4E-02	
Dibenzofuran	4.7E-05	9.8E-05	No	4E-03			NA/HEAST	1000		1.2E-02	2.4E-02	
Dibenzo(a,h)anthracene	5.6E-05	9.8E-05	No	4E-03			IRIS,HEAST			1.4E-02	2.4E-02	
Di-n-butylphthalate	6.5E-05	9.8E-05	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	6.5E-04	9.8E-04	
Di-n-octylphthalate	5.6E-05	9.8E-05	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		2.8E-03	4.9E-03	
Fluoranthene	5.8E-05	9.8E-05	No	4E-02	Low	Nephropathy,changes in liver weight,clinical effects	Gavage/IRIS	3000	1	1.5E-03	2.4E-03	
Fluorene	7.5E-05	2.1E-04	No	4E-02	Low		Gavage/IRIS	3000	1	1.9E-03	5.1E-03	
Indeno(123cd)pyrene	5.6E-05	9.8E-05	No	4E-03			NA/IRIS,HEAST			1.4E-02	2.4E-02	
Naphthalene	5.6E-05	9.8E-05	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.4E-02	2.4E-02	
Phenanthrene	8.7E-05	4.3E-04	No	4E-03			NA/HEAST			2.2E-02	1.1E-01	
Phenol	0.0E+00	0.0E+00	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	0.0E+00	0.0E+00	
Pyrene	7.6E-05	2.3E-04	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	2.5E-03	7.5E-03	
PESTICIDES												
4,4'-DDE	0.0E+00	0.0E+00	No	5E-04			NA/IRIS,HEAST			0.0E+00	0.0E+00	
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00	

TABLE C.5-1
SCENARIO 5
INGESTION OF CHEMICALS IN DRINKING WATER
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	IR CHILD (liter/day)	IR ADULT (liter/day)	EF (days/year)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																				
Aluminum	6.44E-01	3.68E-01	2.21E+00	1.22E+00	5.52E-02	1.63E-01	1.90E-01	5.24E-01	12.99	44.60	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Arsenic	2.09E-04	1.16E-04	8.23E-04	4.55E-04	1.80E-05	4.95E-05	7.08E-05	1.95E-04	0.0042	0.0166	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Barium	5.02E-03	2.77E-03	2.82E-02	1.56E-02	4.31E-04	1.19E-03	2.42E-03	6.68E-03	0.10	0.57	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Beryllium	3.39E-05	1.87E-05	1.19E-04	6.58E-05	2.91E-06	8.03E-06	1.02E-05	2.82E-05	0.0007	0.0024	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Cadmium	1.49E-04	8.25E-05	2.42E-03	1.34E-03	1.28E-05	3.53E-05	2.07E-04	5.73E-04	0.0030	0.0488	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chromium	1.13E-03	6.22E-04	2.33E-03	1.29E-03	9.65E-05	2.66E-04	2.00E-04	5.52E-04	0.02	0.05	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Cobalt	1.30E-03	7.19E-04	2.48E-03	1.37E-03	1.12E-04	3.08E-04	2.13E-04	5.87E-04	0.03	0.05	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Copper	3.13E-03	1.73E-03	5.11E-02	2.82E-02	2.69E-04	7.42E-04	4.38E-03	1.21E-02	0.06	1.03	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Lead	5.56E-03	3.07E-03	2.04E-01	1.13E-01	4.77E-04	1.32E-03	1.75E-02	4.84E-02	0.11	4.12	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Manganese	2.21E-01	1.22E-01	4.32E-01	2.39E-01	1.89E-02	5.23E-02	3.71E-02	1.02E-01	4.45	8.72	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Mercury	1.52E-05	8.41E-06	1.04E-04	5.75E-05	1.31E-06	3.61E-06	8.93E-06	2.47E-05	0.0003	0.0021	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Nickel	1.94E-03	1.07E-03	4.04E-03	2.23E-03	1.66E-04	4.59E-04	3.46E-04	9.57E-04	0.04	0.08	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Selenium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Zinc	2.21E-02	1.22E-02	8.15E-01	3.40E-01	1.89E-03	5.23E-03	5.27E-02	1.46E-01	0.45	12.40	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
VOLATILES																				
1,1-Dichloroethene	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzene	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Carbon disulfide	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chloroform	2.16E-04	1.19E-04	1.24E-03	6.85E-04	1.85E-05	5.11E-05	1.06E-04	2.94E-04	0.0044	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chloromethane	4.51E-04	2.49E-04	2.48E-03	1.37E-03	3.87E-05	1.07E-04	2.13E-04	5.87E-04	0.0091	0.0500	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Styrene	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Toluene	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	4.51E-04	2.49E-04	2.48E-03	1.37E-03	3.87E-05	1.07E-04	2.13E-04	5.87E-04	0.0091	0.0500	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Xylenes	2.26E-04	1.25E-04	1.24E-03	6.85E-04	1.93E-05	5.34E-05	1.06E-04	2.94E-04	0.0046	0.0250	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
SEMIVOLATILES																				
Acenaphthene	3.25E-04	1.79E-04	1.19E-03	6.58E-04	2.78E-05	7.68E-05	1.02E-04	2.82E-04	0.0065	0.0240	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Acenaphthylene	3.27E-04	1.81E-04	4.98E-04	2.74E-04	2.80E-05	7.75E-05	4.25E-05	1.17E-04	0.0066	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Anthracene	3.20E-04	1.77E-04	4.98E-04	2.74E-04	2.75E-05	7.59E-05	4.25E-05	1.17E-04	0.0065	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	2.57E-04	1.42E-04	4.98E-04	2.74E-04	2.20E-05	6.09E-05	4.25E-05	1.17E-04	0.0052	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	2.37E-04	1.31E-04	4.98E-04	2.74E-04	2.03E-05	5.61E-05	4.25E-05	1.17E-04	0.0048	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	2.06E-04	1.14E-04	4.98E-04	2.74E-04	1.77E-05	4.89E-05	4.25E-05	1.17E-04	0.0042	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	2.85E-04	1.57E-04	4.98E-04	2.74E-04	2.44E-05	6.74E-05	4.25E-05	1.17E-04	0.0057	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	2.85E-04	1.57E-04	4.98E-04	2.74E-04	2.44E-05	6.74E-05	4.25E-05	1.17E-04	0.0057	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	2.95E-04	1.63E-04	4.98E-04	2.74E-04	2.53E-05	6.98E-05	4.25E-05	1.17E-04	0.0059	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	2.85E-04	1.57E-04	4.98E-04	2.74E-04	2.44E-05	6.74E-05	4.25E-05	1.17E-04	0.0057	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Chrysene	2.72E-04	1.50E-04	4.98E-04	2.74E-04	2.34E-05	6.45E-05	4.25E-05	1.17E-04	0.0056	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Dibenzofuran	2.37E-04	1.31E-04	4.98E-04	2.74E-04	2.03E-05	5.61E-05	4.25E-05	1.17E-04	0.0048	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	2.85E-04	1.57E-04	4.98E-04	2.74E-04	2.44E-05	6.74E-05	4.25E-05	1.17E-04	0.0057	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	3.27E-04	1.81E-04	4.98E-04	2.74E-04	2.80E-05	7.75E-05	4.25E-05	1.17E-04	0.0066	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Di-n-octylphthalate	2.85E-04	1.57E-04	4.98E-04	2.74E-04	2.44E-05	6.74E-05	4.25E-05	1.17E-04	0.0057	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	2.95E-04	1.63E-04	4.98E-04	2.74E-04	2.53E-05	6.98E-05	4.25E-05	1.17E-04	0.0060	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Fluorene	3.80E-04	2.10E-04	1.04E-03	5.75E-04	3.25E-05	8.99E-05	8.93E-05	2.47E-04	0.0077	0.0210	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	2.85E-04	1.57E-04	4.98E-04	2.74E-04	2.44E-05	6.74E-05	4.25E-05	1.17E-04	0.0057	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Naphthalene	2.85E-04	1.57E-04	4.98E-04	2.74E-04	2.44E-05	6.74E-05	4.25E-05	1.17E-04	0.0057	0.0100	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	4.40E-04	2.43E-04	2.18E-03	1.21E-03	3.77E-05	1.04E-04	1.87E-04	5.17E-04	0.0089	0.0440	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Phenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
Pyrene	3.67E-04	2.14E-04	1.14E-03	6.30E-04	3.31E-05	9.15E-05	9.78E-05	2.70E-04	0.0078	0.0230	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																				
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.750	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE C.5-2
SCENARIO 5
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CONVERSION FACTOR (10E-6kg/mg)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																						
Aluminum	1.1E-01	1.1E-02	1.4E-01	1.5E-02	9.1E-03	4.7E-03	1.2E-02	6.2E-03	8007.26	10600.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Antimony	3.8E-05	3.9E-06	7.4E-05	7.7E-06	3.3E-06	1.7E-06	6.3E-06	3.3E-06	2.87	5.80	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	6.8E-05	7.0E-06	1.3E-04	1.2E-05	5.8E-06	3.0E-06	1.0E-05	5.2E-06	5.12	8.90	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Barium	2.6E-04	2.6E-05	3.7E-04	3.9E-05	2.2E-05	1.1E-05	3.2E-05	1.7E-05	19.30	28.30	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	3.6E-06	3.7E-07	6.3E-06	6.6E-07	3.1E-07	1.6E-07	5.4E-07	2.8E-07	0.27	0.48	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	5.3E-06	5.5E-07	1.2E-05	1.3E-06	4.6E-07	2.4E-07	1.1E-06	5.6E-07	0.40	0.94	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	1.7E-04	1.8E-05	2.8E-04	2.9E-05	1.5E-05	7.7E-06	2.1E-05	1.1E-05	13.03	18.80	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	1.1E-04	1.1E-05	2.6E-04	2.7E-05	9.1E-06	4.7E-06	2.3E-05	1.2E-05	8.02	20.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	2.7E-04	2.8E-05	5.9E-04	6.1E-05	2.4E-05	1.2E-05	5.0E-05	2.6E-05	20.76	44.30	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	1.7E-04	1.1E-05	5.1E-04	3.2E-05	1.5E-05	4.5E-06	4.4E-05	1.4E-05	25.64	77.80	200	100	1.0E-06	350	6	30	a	14.5	70	2190	10950	25550
Manganese	3.3E-03	3.8E-04	9.9E-03	1.0E-03	2.9E-04	1.5E-04	8.5E-04	4.4E-04	253.05	750.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	9.9E-07	1.0E-07	2.2E-06	2.3E-07	8.5E-08	4.4E-08	1.9E-07	1.0E-07	0.08	0.17	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	1.4E-04	1.5E-05	3.4E-04	3.5E-05	1.2E-05	6.4E-06	2.9E-05	1.5E-05	10.88	25.60	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	3.4E-06	3.5E-07	7.0E-06	7.3E-07	2.9E-07	1.5E-07	6.0E-07	3.1E-07	0.25	0.53	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	7.1E-04	7.3E-05	1.9E-03	1.9E-04	6.1E-05	3.1E-05	1.6E-04	8.3E-05	53.50	142.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																						
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chloromethane	1.3E-07	1.3E-08	1.6E-07	1.6E-08	1.1E-08	5.6E-09	1.4E-08	7.0E-09	0.010	0.012	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	3.7E-08	3.8E-09	2.6E-08	2.7E-09	3.2E-09	1.6E-09	2.3E-09	1.2E-09	0.0028	0.0020	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
SEMIVOLATILES																						
Acenaphthene	5.0E-06	5.2E-07	1.0E-05	1.1E-06	4.3E-07	2.2E-07	1.1E-06	5.5E-07	0.377	0.940	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthylene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	4.4E-07	2.3E-07	5.9E-07	3.1E-07	0.384	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	4.9E-06	5.0E-07	2.0E-05	2.1E-06	4.1E-07	2.1E-07	1.7E-06	8.8E-07	0.363	1.500	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	6.0E-06	6.2E-07	4.4E-05	4.6E-06	5.1E-07	2.7E-07	3.7E-06	1.9E-06	0.452	3.300	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	5.0E-06	5.1E-07	3.6E-05	3.7E-06	4.3E-07	2.2E-07	3.1E-06	1.6E-06	0.375	2.700	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	5.6E-06	5.8E-07	3.7E-05	3.9E-06	4.8E-07	2.5E-07	3.2E-06	1.6E-06	0.424	2.800	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ghi)perylene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	4.4E-07	2.3E-07	5.9E-07	3.1E-07	0.384	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	4.7E-06	4.9E-07	4.1E-05	4.2E-06	4.0E-07	2.1E-07	3.6E-06	1.8E-06	0.357	3.100	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bis (ethylhexyl)phthalate	4.4E-06	4.5E-07	7.9E-06	8.1E-07	3.7E-07	1.9E-07	6.7E-07	3.5E-07	0.331	0.590	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	5.1E-06	5.3E-07	6.9E-06	7.1E-07	4.4E-07	2.3E-07	5.9E-07	3.1E-07	0.384	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	5.8E-06	6.0E-07	3.7E-05	3.9E-06	5.0E-07	2.6E-07	3.2E-06	1.6E-06	0.437	2.800	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzofuran	4.7E-06	4.9E-07	8.9E-06	9.2E-07	4.0E-07	2.1E-07	7.4E-07	3.8E-07	0.355	0.650	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	4.4E-07	2.3E-07	5.9E-07	3.1E-07	0.384	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	5.7E-06	5.9E-07	8.9E-06	7.1E-07	4.9E-07	2.5E-07	5.9E-07	3.1E-07	0.431	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-octylphthalate	5.1E-06	5.3E-07	6.9E-06	7.1E-07	4.4E-07	2.3E-07	5.9E-07	3.1E-07	0.384	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	4.7E-06	4.9E-07	1.1E-04	1.1E-05	4.0E-07	2.1E-07	9.1E-06	4.7E-06	0.357	8.000	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	5.2E-06	5.4E-07	1.0E-05	1.0E-06	4.5E-07	2.3E-07	1.4E-06	7.0E-07	0.393	1.200	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	4.4E-07	2.3E-07	5.9E-07	3.1E-07	0.384	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	4.5E-06	4.6E-07	6.9E-06	7.1E-07	3.8E-07	2.0E-07	5.9E-07	3.1E-07	0.337	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	5.8E-06	6.0E-07	9.5E-05	9.8E-06	4.9E-07	2.6E-07	8.2E-06	4.2E-06	0.435	7.200	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Phenol	5.1E-06	5.3E-07	6.9E-06	7.1E-07	4.4E-07	2.3E-07	5.9E-07	3.1E-07	0.384	0.520	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	5.7E-06	5.9E-07	7.5E-05	7.8E-06	4.9E-07	2.5E-07	6.5E-06	3.3E-06	0.433	5.700	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																						
4,4'-DDE	2.3E-08	2.4E-09	3.2E-08	3.3E-09	2.0E-09	1.0E-09	2.8E-09	1.4E-09	0.0059	0.0081	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
4,4'-DDT	2.0E-08	2.1E-09	3.5E-08	3.6E-09	1.7E-09	9.0E-10	3.0E-09	1.5E-09	0.0051	0.0088	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550

TABLE C5-3
SCENARIO 5
DERMAL CONTACT WITH CHEMICALS IN SOIL
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	ABS. DOSE CHI NONCANCER MEAN (mg/kg/day)	ABS. DOSE AD NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHI NONCANCER MAX. (mg/kg/day)	ABS. DOSE AD NONCANCER MAX. (mg/kg/day)	ABS. DOSE CHI CANCER MEAN (mg/kg/day)	ABS. DOSE AD CANCER MEAN (mg/kg/day)	ABS. DOSE CHI CANCER MAX. (mg/kg/day)	ABS. DOSE AD CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERS FACTOR (10E-6 kg	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT CHILD NONCANCER (days)	AT CANCER (days)
INORGANICS																					
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8007.26	10600.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.87	5.60	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.12	8.90	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.30	28.30	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.27	0.48	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.40	0.94	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.03	18.80	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.02	20.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20.76	44.30	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	25.64	77.80	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	253.05	750.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.06	0.17	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10.88	25.80	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.25	0.53	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	53.50	142.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Chloromethane	1.6E-07	3.3E-08	2.0E-07	4.1E-08	1.3E-08	1.4E-08	1.7E-08	1.8E-08	0.0095	0.0120	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	4.6E-08	9.6E-09	5.8E-08	6.8E-09	4.0E-09	4.1E-09	2.8E-09	2.9E-09	0.0028	0.0020	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
SEMIVOLATILES																					
Acenaphthene	6.2E-07	1.3E-07	1.6E-06	3.2E-07	5.3E-08	5.5E-08	1.3E-07	1.4E-07	0.38	0.94	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Acenaphthylene	6.4E-07	1.3E-07	8.6E-07	1.8E-07	5.4E-08	5.6E-08	7.4E-08	7.6E-08	0.38	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Anthracene	6.0E-07	1.2E-07	2.5E-06	5.1E-07	5.1E-08	5.3E-08	2.1E-07	2.2E-07	0.36	1.50	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	7.5E-07	1.5E-07	5.5E-06	1.1E-06	6.4E-08	6.6E-08	4.7E-07	4.8E-07	0.45	3.30	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	6.2E-07	1.3E-07	4.5E-06	9.2E-07	5.3E-08	5.5E-08	3.8E-07	4.0E-07	0.38	2.70	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	7.0E-07	1.5E-07	4.6E-06	9.6E-07	6.0E-08	6.2E-08	4.0E-07	4.1E-07	0.42	2.80	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	6.4E-07	1.3E-07	8.6E-07	1.8E-07	5.4E-08	5.6E-08	7.4E-08	7.6E-08	0.38	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	5.9E-07	1.2E-07	5.1E-06	1.1E-06	5.1E-08	5.2E-08	4.4E-07	4.5E-07	0.36	3.10	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Bis(2-ethylhexyl)phthalate	5.6E-07	1.1E-07	9.6E-07	2.0E-07	4.7E-08	4.9E-08	8.4E-08	8.7E-08	0.33	0.59	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	6.4E-07	1.3E-07	8.6E-07	1.8E-07	5.4E-08	5.6E-08	7.4E-08	7.6E-08	0.38	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Chrysene	7.2E-07	1.5E-07	4.8E-06	9.8E-07	6.2E-08	6.4E-08	4.0E-07	4.1E-07	0.44	2.80	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Dibenzofuran	5.9E-07	1.2E-07	1.1E-06	2.2E-07	5.0E-08	5.2E-08	9.2E-08	9.5E-08	0.35	0.65	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	6.4E-07	1.3E-07	8.6E-07	1.8E-07	5.4E-08	5.6E-08	7.4E-08	7.6E-08	0.38	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	7.1E-07	1.5E-07	8.6E-07	1.8E-07	6.1E-08	6.3E-08	7.4E-08	7.6E-08	0.43	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Di-n-octylphthalate	6.4E-07	1.3E-07	8.6E-07	1.8E-07	5.4E-08	5.6E-08	7.4E-08	7.6E-08	0.38	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	5.9E-07	1.2E-07	1.3E-05	2.7E-06	5.1E-08	5.2E-08	1.1E-06	1.2E-06	0.36	8.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Fluorene	6.5E-07	1.3E-07	2.0E-06	4.1E-07	5.6E-08	5.8E-08	1.7E-07	1.8E-07	0.39	1.20	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	6.4E-07	1.3E-07	8.6E-07	1.8E-07	5.4E-08	5.6E-08	7.4E-08	7.6E-08	0.38	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Naphthalene	5.6E-07	1.2E-07	8.6E-07	1.8E-07	4.8E-08	4.9E-08	7.4E-08	7.6E-08	0.34	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	7.2E-07	1.5E-07	1.2E-05	2.5E-06	6.2E-08	6.4E-08	1.0E-06	1.1E-06	0.44	7.20	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Phenol	6.4E-07	1.3E-07	8.6E-07	1.8E-07	5.4E-08	5.6E-08	7.4E-08	7.6E-08	0.38	0.52	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Pyrene	7.2E-07	1.5E-07	9.4E-06	2.0E-06	6.1E-08	6.4E-08	8.1E-07	8.4E-07	0.43	5.70	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDE	9.7E-09	2.0E-09	1.3E-08	2.8E-09	8.3E-10	8.6E-10	1.1E-09	1.2E-09	0.0059	0.0081	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	8.4E-09	1.7E-09	1.5E-08	3.0E-09	7.2E-10	7.5E-10	1.2E-09	1.3E-09	0.0051	0.0088	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550

TABLE C.5-4
SCENARIO 5
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR (m3/day)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT ADULT NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																					
Aluminum	3.56E-06	7.37E-07	4.71E-06	9.76E-07	3.05E-07	3.16E-07	4.04E-07	4.18E-07	3.36E-10	9007.26	10600.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Antimony	1.26E-09	2.64E-10	2.49E-09	5.16E-10	1.09E-10	1.13E-10	2.13E-10	2.21E-10	3.36E-10	2.87	5.60	20	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	2.27E-09	4.71E-10	3.98E-09	8.19E-10	1.95E-10	2.02E-10	3.39E-10	3.51E-10	3.36E-10	5.12	8.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Barium	8.58E-09	1.78E-09	1.28E-08	2.61E-09	7.35E-10	7.61E-10	1.08E-09	1.12E-09	3.36E-10	19.30	28.30	20	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	1.21E-10	2.52E-11	2.13E-10	4.42E-11	1.04E-11	1.08E-11	1.83E-11	1.89E-11	3.36E-10	0.27	0.48	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	1.79E-10	3.72E-11	4.18E-10	8.65E-11	1.54E-11	1.59E-11	3.58E-11	3.71E-11	3.36E-10	0.40	0.94	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	5.79E-09	1.20E-09	8.35E-09	1.73E-09	4.96E-10	5.14E-10	7.16E-10	7.42E-10	3.36E-10	13.03	18.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	3.56E-09	7.39E-10	8.89E-09	1.84E-09	3.05E-10	3.16E-10	7.62E-10	7.89E-10	3.36E-10	8.02	20.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	9.23E-09	1.91E-09	1.97E-08	4.08E-09	7.91E-10	8.19E-10	1.69E-09	1.75E-09	3.36E-10	20.76	44.30	20	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	1.14E-08	2.36E-09	3.46E-08	7.16E-09	9.77E-10	1.01E-09	2.96E-09	3.07E-09	3.36E-10	25.64	77.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Manganese	1.12E-07	2.33E-08	3.33E-07	6.90E-08	9.84E-09	9.96E-09	2.86E-08	2.96E-08	3.36E-10	253.05	750.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	3.34E-11	6.92E-12	7.55E-11	1.56E-11	2.86E-12	2.97E-12	6.48E-12	6.71E-12	3.36E-10	0.08	0.17	20	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	4.84E-09	1.00E-09	1.14E-08	2.36E-09	4.15E-10	4.29E-10	9.75E-10	1.01E-09	3.36E-10	10.88	25.60	20	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	1.13E-10	2.34E-11	2.36E-10	4.88E-11	9.69E-12	1.00E-11	2.02E-11	2.09E-11	3.36E-10	0.25	0.53	20	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	2.36E-08	4.92E-09	6.31E-08	1.31E-08	2.04E-09	2.11E-09	5.41E-09	5.60E-09	3.36E-10	53.50	142.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon disulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chloroform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chloromethane	4.23E-12	8.77E-13	5.33E-12	1.10E-12	3.63E-13	3.76E-13	4.57E-13	4.73E-13	3.36E-10	0.0095	0.0120	20	350	6	30	1.0	14.5	70	2190	10950	25550
Ethylbenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	1.25E-12	2.58E-13	8.89E-13	1.84E-13	1.07E-13	1.11E-13	7.62E-14	7.89E-14	3.36E-10	0.0028	0.0020	20	350	6	30	1.0	14.5	70	2190	10950	25550
Toluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Vinyl chloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Xylenes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
SEMIVOLATILES																					
Acenaphthene	1.68E-10	3.47E-11	4.18E-10	8.65E-11	1.44E-11	1.49E-11	3.58E-11	3.71E-11	3.36E-10	0.38	0.94	20	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthylene	1.71E-10	3.54E-11	2.31E-10	4.79E-11	1.46E-11	1.52E-11	1.98E-11	2.05E-11	3.36E-10	0.38	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	1.61E-10	3.34E-11	6.67E-10	1.38E-10	1.38E-11	1.43E-11	5.71E-11	5.92E-11	3.36E-10	0.36	1.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	2.01E-10	4.16E-11	1.47E-09	3.04E-10	1.72E-11	1.78E-11	1.26E-10	1.30E-10	3.36E-10	0.45	3.30	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	1.67E-10	3.45E-11	1.20E-09	2.49E-10	1.43E-11	1.48E-11	1.03E-10	1.07E-10	3.36E-10	0.38	2.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.88E-10	3.90E-11	1.24E-09	2.56E-10	1.61E-11	1.67E-11	1.07E-10	1.10E-10	3.36E-10	0.42	2.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ghi)perylene	1.71E-10	3.54E-11	2.31E-10	4.79E-11	1.46E-11	1.52E-11	1.98E-11	2.05E-11	3.36E-10	0.38	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	1.58E-10	3.28E-11	1.36E-09	2.82E-10	1.36E-11	1.41E-11	1.18E-10	1.22E-10	3.36E-10	0.36	3.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2-ethylhexyl)phthalate	1.47E-10	3.04E-11	2.62E-10	5.43E-11	1.26E-11	1.30E-11	2.25E-11	2.33E-11	3.36E-10	0.33	0.59	20	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	1.71E-10	3.54E-11	2.31E-10	4.79E-11	1.46E-11	1.52E-11	1.98E-11	2.05E-11	3.36E-10	0.38	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	1.94E-10	4.02E-11	1.24E-09	2.58E-10	1.66E-11	1.72E-11	1.07E-10	1.10E-10	3.36E-10	0.44	2.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzofuran	1.56E-10	3.25E-11	2.89E-10	5.98E-11	1.35E-11	1.40E-11	2.48E-11	2.56E-11	3.36E-10	0.35	0.65	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	1.71E-10	3.54E-11	2.31E-10	4.79E-11	1.46E-11	1.52E-11	1.98E-11	2.05E-11	3.36E-10	0.38	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	1.92E-10	3.97E-11	2.31E-10	4.79E-11	1.84E-11	1.70E-11	1.98E-11	2.05E-11	3.36E-10	0.43	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-octylphthalate	1.71E-10	3.54E-11	2.31E-10	4.79E-11	1.46E-11	1.52E-11	1.98E-11	2.05E-11	3.36E-10	0.38	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	1.58E-10	3.28E-11	3.56E-09	7.38E-10	1.36E-11	1.41E-11	3.05E-10	3.16E-10	3.36E-10	0.36	8.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	1.75E-10	3.62E-11	5.33E-10	1.10E-10	1.50E-11	1.55E-11	4.57E-11	4.73E-11	3.36E-10	0.39	1.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	1.71E-10	3.54E-11	2.31E-10	4.79E-11	1.46E-11	1.52E-11	1.98E-11	2.05E-11	3.36E-10	0.38	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	1.60E-10	3.10E-11	2.31E-10	4.79E-11	1.28E-11	1.33E-11	1.98E-11	2.05E-11	3.36E-10	0.34	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	1.93E-10	4.01E-11	3.20E-09	6.63E-10	1.66E-11	1.72E-11	2.74E-10	2.84E-10	3.36E-10	0.44	7.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenol	1.71E-10	3.54E-11	2.31E-10	4.79E-11	1.46E-11	1.52E-11	1.98E-11	2.05E-11	3.36E-10	0.38	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	1.92E-10	3.98E-11	2.53E-09	5.25E-10	1.65E-11	1.71E-11	2.17E-10	2.25E-10	3.36E-10	0.43	5.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDE	2.61E-12	5.41E-13	3.60E-12	7.46E-13	2.24E-13	2.32E-13	3.09E-13	3.20E-13	3.36E-10	0.0059	0.0081	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDT	2.26E-12	4.68E-13	3.91E-12	8.10E-13	1.94E-13	2.01E-13	3.35E-13	3.47E-13	3.36E-10	0.0051	0.0068	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE C.5-5
SCENARIO 5
INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS
OLD FIREFIGHTING TRAINING AREA

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	IR (m3/hour	ET hours/d	EF (days/year)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
VOLATILES																				
1,1-Dichloroethane	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Benzene	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Carbon disulfide	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Chloro brm	1.04E-04	2.15E-05	5.95E-04	1.23E-04	8.88E-06	9.20E-06	5.10E-05	5.28E-05	1.31E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Chloro methane	2.17E-04	4.49E-05	1.19E-03	2.47E-04	1.86E-05	1.92E-05	1.02E-04	1.06E-04	2.73E-02	1.50E-01	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Ethybenzene	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Styrene	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Tetrachloro ethene	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Toluene	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Vinyl chloride	2.17E-04	4.49E-05	1.19E-03	2.47E-04	1.86E-05	1.92E-05	1.02E-04	1.06E-04	2.73E-02	1.50E-01	0.600	0.2	350	6	30	14.5	70	2190	10950	25550
Xylenes	1.08E-04	2.24E-05	5.95E-04	1.23E-04	9.29E-06	9.62E-06	5.10E-05	5.28E-05	1.37E-02	7.50E-02	0.600	0.2	350	6	30	14.5	70	2190	10950	25550

TABLE C.5-6
SCENARIO 5
COMPOUND CONCENTRATIONS EMITTED FROM TAP WATER
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	Concentration In tap water mean (mg/L)	Concentration In tap water maximum (mg/L)	Flow Rate Of Shower Water (l/hr)	Fraction Of Contaminant Volatilized	One Half The Duration Of Shower (hr)	Bathroom Volume (m3)	Concentration in Bathroom mean (mg/m3)	Concentration in Bathroom maximum (mg/m3)
VOLATILES								
1,1-Dichloroethene	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
1,1,2,2-Tetrachloroethane	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
Benzene	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
Carbon disulfide	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
Chloroform	0.0044	0.0250	400.0	0.9	0.1	12.0	1.3E-02	7.5E-02
Chloromethane	0.0091	0.0500	400.0	0.9	0.1	12.0	2.7E-02	1.5E-01
Ethylbenzene	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
Styrene	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
Tetrachloroethene	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
Toluene	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02
Vinyl chloride	0.0091	0.0500	400.0	0.9	0.1	12.0	2.7E-02	1.5E-01
Xylenes	0.0046	0.0250	400.0	0.9	0.1	12.0	1.4E-02	7.5E-02

TABLE C.5-7
SCENARIO 5
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	TOTAL PATHWAY RISK
														1.9E-03	1.9E-03 CHILD MEAN
														5.1E-03	5.2E-03 ADULT MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER														3.7E-03	4.0E-03 CHILD MAXIMUM
														1.0E-02	1.0E-02 ADULT MAXIMUM
INORGANICS															
Aluminum	5.5E-02	1.6E-01	1.9E-01	5.2E-01	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Arsenic	1.8E-05	5.0E-05	7.1E-05	1.9E-04	No	1.75E+00	A	Skin	IRIS	3.1E-05	8.7E-05	1.2E-04	3.4E-04		
Barium	4.3E-04	1.2E-03	2.4E-03	6.7E-03	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Beryllium	2.9E-06	8.0E-06	1.0E-05	2.8E-05	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	1.3E-05	3.5E-05	4.4E-05	1.2E-04		
Cadmium	1.3E-05	3.6E-05	2.1E-04	5.7E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chromium	9.6E-05	2.7E-04	2.0E-04	5.5E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Cobalt	1.1E-04	3.1E-04	2.1E-04	5.9E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Copper	2.7E-04	7.4E-04	4.4E-03	1.2E-02	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Lead	4.8E-04	1.3E-03	1.8E-02	4.8E-02	No	NA	B2	Renal tumors	NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Manganese	1.9E-02	5.2E-02	3.7E-02	1.0E-01	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Mercury	1.3E-06	3.6E-06	9.9E-06	2.5E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Nickel	1.7E-04	4.6E-04	3.5E-04	9.6E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Zinc	1.9E-03	5.2E-03	5.3E-02	1.5E-01	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
VOLATILES															
1,1-Dichloroethene	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	1.2E-05	3.2E-05	6.4E-05	1.8E-04		
1,1,2,2-Tetrachloroethane	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	3.9E-06	1.1E-05	2.1E-05	5.9E-05		
Benzene	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	2.90E-02	A	Leukemia	Occupational/IRIS	5.6E-07	1.5E-06	3.1E-06	8.5E-06		
Carbon disulfide	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	1.9E-05	5.1E-05	1.1E-04	2.9E-04	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	1.1E-07	3.1E-07	6.5E-07	1.8E-06		
Chloromethane	3.9E-05	1.1E-04	2.1E-04	5.9E-04	No	1.30E-02	C	Kidney	Inhalation/HEAST	5.0E-07	1.4E-06	2.8E-06	7.8E-06		
Ethylbenzene	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	5.8E-07	1.6E-06	3.2E-06	8.8E-06		
Tetrachloroethene	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	5.10E-02	B2	Liver	Gavage/HEAST	9.9E-07	2.7E-06	5.4E-06	1.5E-05		
Toluene	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Vinyl chloride	3.9E-05	1.1E-04	2.1E-04	5.9E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Xylenes	1.9E-05	5.3E-05	1.1E-04	2.9E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
SEMIVOLATILES															
Acenaphthene	2.8E-05	7.7E-05	1.0E-04	2.8E-04	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Acenaphthylene	2.8E-05	7.7E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Anthracene	2.7E-05	7.6E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(a)anthracene	2.2E-05	6.1E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	2.5E-04	7.0E-04	4.9E-04	1.4E-03		
Benzo(a)pyrene	2.0E-05	5.6E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, stomach	IRIS	2.3E-04	6.5E-04	4.9E-04	1.4E-03		
Benzo(b)fluoranthene	1.8E-05	4.9E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, thorax, skin	IRIS	2.0E-04	5.6E-04	4.9E-04	1.4E-03		
Benzo(ghi)perylene	2.4E-05	6.7E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(k)fluoranthene	2.4E-05	6.7E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, thorax, skin	IRIS	2.8E-04	7.8E-04	4.9E-04	1.4E-03		
Bis(2ethylhexyl)phthalate	2.5E-05	7.0E-05	4.3E-05	1.2E-04	No	1.40E-02	B2	Liver	IRIS	3.5E-07	9.8E-07	6.0E-07	1.6E-06		
Butylbenzylphthalate	2.4E-05	6.7E-05	4.3E-05	1.2E-04	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chrysene	2.3E-05	6.4E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Malignant lymphoma	IRIS	2.7E-04	7.4E-04	4.9E-04	1.4E-03		
Dibenzofuran	2.0E-05	5.6E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Dibenzo(a,h)anthracene	2.4E-05	6.7E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, Mammary	IRIS	2.8E-04	7.8E-04	4.9E-04	1.4E-03		
Di-n-butylphthalate	2.8E-05	7.7E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Di-n-octylphthalate	2.4E-05	6.7E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Fluoranthene	2.5E-05	7.0E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Fluorene	3.3E-05	9.0E-05	8.9E-05	2.5E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Indeno(123cd)pyrene	2.4E-05	6.7E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, skin	IRIS	2.8E-04	7.8E-04	4.9E-04	1.4E-03		
Naphthalene	2.4E-05	6.7E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Phenanthrene	3.8E-05	1.0E-04	1.9E-04	5.2E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Phenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Pyrene	3.3E-05	9.2E-05	9.6E-05	2.7E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
PESTICIDES															
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver tumor	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

TABLE C.5-8
SCENARIO 5
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL														1.6E-09	CHILD MEAN
														1.6E-09	ADULT MEAN
														2.4E-09	CHILD MAXIMUM
														2.4E-09	ADULT MAXIMUM
VOLATILES															
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-01				0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2,2-Tetrachloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloromethane	1.3E-08	1.4E-08	1.7E-08	1.8E-08	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.8E-10	1.8E-10	2.2E-10	2.3E-10		
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Tetrachloroethene	4.0E-09	4.1E-09	2.8E-08	2.9E-08	No	5.10E-02	B2	Liver	Gavage/HEAST	2.0E-10	2.1E-10	1.4E-10	1.5E-10		
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
SEMIVOLATILES															
Acenaphthene	5.3E-08	5.6E-08	1.3E-07	1.4E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Acenaphthylene	5.4E-08	5.6E-08	7.4E-08	7.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Anthracene	5.1E-08	5.3E-08	2.1E-07	2.2E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(a)anthracene	9.4E-08	9.6E-08	4.7E-07	4.8E-07	No	NA	B2	Liver, Lung, Skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(a)pyrene	5.3E-08	5.5E-08	3.8E-07	4.0E-07	No	NA	B2	Lung, stomach	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(b)fluoranthene	8.0E-08	8.2E-08	4.0E-07	4.1E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(ghi)perylene	5.4E-08	5.6E-08	7.4E-08	7.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(k)fluoranthene	5.1E-08	5.2E-08	4.4E-07	4.5E-07	No	NA	B2	Lung, thorax, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Bis(2ethylhexyl)phthalate	4.7E-08	4.8E-08	8.4E-08	8.7E-08	No	1.40E-02	B2	Liver	IRIS	6.6E-10	6.8E-10	1.2E-09	1.2E-09		
Butylbenzylphthalate	5.4E-08	5.6E-08	7.4E-08	7.6E-08	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chrysene	8.2E-08	8.4E-08	4.0E-07	4.1E-07	No	NA	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Dibenzofuran	9.0E-08	9.2E-08	9.2E-08	9.5E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Dibenzo(a,h)anthracene	5.4E-08	5.6E-08	7.4E-08	7.6E-08	No	NA	B2	Lung, Mammary	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Di-n-butylphthalate	8.1E-08	8.3E-08	7.4E-08	7.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Di-n-octylphthalate	5.4E-08	5.6E-08	7.4E-08	7.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Fluoranthene	5.1E-08	5.2E-08	1.1E-08	1.2E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Fluorene	5.6E-08	5.8E-08	1.7E-07	1.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Indeno(123cd)pyrene	5.4E-08	5.6E-08	7.4E-08	7.6E-08	No	NA	B2	Lung, skin	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Naphthalene	4.8E-08	4.9E-08	7.4E-08	7.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Phenanthrene	6.2E-08	6.4E-08	1.0E-08	1.1E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Phenol	5.4E-08	5.6E-08	7.4E-08	7.6E-08	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Pyrene	5.1E-08	5.4E-08	5.1E-07	5.4E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
PESTICIDES															
4,4'-DDE	8.3E-10	8.6E-10	1.1E-09	1.2E-09	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.8E-10	2.9E-10	3.9E-10	4.0E-10		
4,4'-DDT	7.2E-10	7.5E-10	1.2E-09	1.3E-09	No	3.4E-01	B2	Liver tumor	Diet/IRIS	2.4E-10	2.5E-10	4.2E-10	4.4E-10		

TABLE C.5-9
SCENARIO 5
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	
														4.8E-05	CHILD MEAN
														2.5E-05	ADULT MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST														2.3E-04	CHILD MAXIMUM
														1.2E-04	ADULT MAXIMUM
INORGANICS															
Aluminum	9.1E-03	4.7E-03	1.2E-02	6.2E-03	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Antimony	3.3E-06	1.7E-06	6.3E-06	3.3E-06	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Arsenic	5.8E-06	3.0E-06	1.0E-05	5.2E-06	No	1.75E+00	A	Skin	IRIS	1.0E-05	5.3E-06	1.8E-05	9.1E-06		
Barium	2.2E-05	1.1E-05	3.2E-05	1.7E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Beryllium	3.1E-07	1.6E-07	6.4E-07	2.8E-07	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	1.3E-06	6.9E-07	2.3E-06	1.2E-06		
Cadmium	4.6E-07	2.4E-07	1.1E-06	5.5E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chromium	1.5E-05	7.7E-06	2.1E-05	1.1E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Cobalt	9.1E-06	4.7E-06	2.3E-05	1.2E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Copper	2.4E-05	1.2E-05	5.0E-05	2.6E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Lead	1.5E-05	4.5E-06	4.4E-05	1.4E-05	No	NA	B2	Renal tumors	NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Manganese	2.9E-04	1.5E-04	8.5E-04	4.4E-04	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Mercury	8.5E-08	4.4E-08	1.9E-07	1.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Nickel	1.2E-05	6.4E-06	2.9E-05	1.5E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Selenium	2.9E-07	1.5E-07	6.0E-07	3.1E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Zinc	6.1E-05	3.1E-05	1.6E-04	9.3E-05	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
VOLATILES															
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-01	C	Adrenal pheochromocytomas	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloromethane	1.1E-08	6.6E-09	1.4E-08	7.0E-09	No	1.30E-02	C	Kidney	Inhalation/HEAST	1.4E-10	7.3E-11	1.8E-10	9.2E-11		
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Tetrachloroethene	3.2E-09	1.6E-09	2.3E-09	1.2E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	1.6E-10	8.4E-11	1.2E-10	6.0E-11		
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
SEMIVOLATILES															
Acenaphthene	4.3E-07	2.2E-07	1.1E-06	5.5E-07	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Acenaphthylene	4.4E-07	2.3E-07	5.9E-07	3.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Anthracene	4.1E-07	2.1E-07	1.7E-06	8.6E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(a)anthracene	5.1E-07	2.7E-07	3.7E-06	1.9E-06	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	5.9E-06	3.1E-06	4.3E-05	2.2E-05		
Benzo(a)pyrene	4.3E-07	2.2E-07	3.1E-06	1.6E-06	No	1.15E+01	B2	Lung, stomach	IRIS	4.9E-06	2.5E-06	3.5E-05	1.8E-05		
Benzo(b)fluoranthene	4.8E-07	2.5E-07	3.2E-06	1.6E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	5.5E-06	2.9E-06	3.7E-05	1.9E-05		
Benzo(ghi)perylene	4.4E-07	2.3E-07	5.9E-07	3.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzo(k)fluoranthene	4.0E-07	2.1E-07	3.5E-06	1.8E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	4.6E-06	2.4E-06	4.0E-05	2.1E-05		
Bis(2ethylhexyl)phthalate	3.7E-07	1.9E-07	6.7E-07	3.5E-07	No	1.40E-02	B2	Liver	IRIS	5.2E-09	2.7E-09	9.4E-09	4.8E-09		
Butylbenzylphthalate	4.4E-07	2.3E-07	5.9E-07	3.1E-07	No	NA	C	Leukemia	Diet/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chrysene	5.0E-07	2.6E-07	3.2E-06	1.6E-06	No	1.15E+01	B2	Malignant lymphoma	IRIS	5.7E-06	2.9E-06	3.7E-05	1.9E-05		
Dibenzofuran	4.0E-07	2.1E-07	7.4E-07	3.8E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Dibenzo(a,h)anthracene	4.4E-07	2.3E-07	5.9E-07	3.1E-07	No	1.15E+01	B2	Lung, Mammary	IRIS	5.0E-06	2.6E-06	6.8E-06	3.5E-06		
Di-n-butylphthalate	4.9E-07	2.5E-07	5.9E-07	3.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Di-n-octylphthalate	4.4E-07	2.3E-07	5.9E-07	3.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Fluoranthene	4.0E-07	2.1E-07	9.1E-06	4.7E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Fluorene	4.5E-07	2.3E-07	1.4E-06	7.0E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Indeno(123cd)pyrene	4.4E-07	2.3E-07	5.9E-07	3.1E-07	No	1.15E+01	B2	Lung, skin	IRIS	5.0E-06	2.6E-06	6.8E-06	3.5E-06		
Naphthalene	3.8E-07	2.0E-07	5.9E-07	3.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Phenanthrene	4.9E-07	2.6E-07	8.2E-06	4.2E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Phenol	4.4E-07	2.3E-07	5.9E-07	3.1E-07	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Pyrene	4.9E-07	2.6E-07	6.5E-06	3.3E-06	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
PESTICIDES															
4,4'-DDE	2.0E-09	1.0E-09	2.8E-09	1.4E-09	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	6.8E-10	3.5E-10	9.4E-10	4.9E-10		
4,4'-DDT	1.7E-09	9.0E-10	3.0E-09	1.5E-09	No	3.4E-01	B2	Liver tumor	Diet/IRIS	5.9E-10	3.0E-10	1.0E-09	5.3E-10		

TABLE C.5-10
SCENARIO 5
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	
														8.4E-06	CHILD MEAN
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS														8.7E-06	ADULT MEAN
														4.6E-05	CHILD MAXIMUM
														4.6E-05	ADULT MAXIMUM
VOLATILES															
1,1-Dichloroethene	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	1.80E-01	C	Mammary gland, liver	IRIS,HEAST	1.7E-06	1.7E-06	9.2E-06	9.5E-06		
1,1,2,2-Tetrachloroethane	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Benzene	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	2.9E-02	A	Leukemia	Occupational/IRIS	2.7E-07	2.8E-07	1.5E-06	1.5E-06		
Carbon disulfide	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	8.9E-06	9.2E-06	5.1E-05	5.3E-05	No	8.10E-02	B2	Liver	IRIS	7.2E-07	7.5E-07	4.1E-06	4.3E-06		
Chloromethane	1.9E-05	1.9E-05	1.0E-04	1.1E-04	No	6.00E-03	C	Kidney	Inhalation/HEAST	1.1E-07	1.2E-07	6.1E-07	6.3E-07		
Ethylbenzene	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	2.0E-03	B2	Leukemia	HEAST	1.9E-06	1.9E-06	1.0E-07	1.1E-07		
Tetrachloroethene	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	1.8E-03	B2	Leukemia, liver	HEAST	1.7E-06	1.7E-06	9.2E-06	9.5E-06		
Toluene	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Vinyl chloride	1.9E-05	1.9E-05	1.0E-04	1.1E-04	No	3.00E-01	A	Liver	Inhalation/HEAST	5.6E-06	5.8E-06	3.1E-05	3.2E-05		
Xylenes	9.3E-06	9.6E-06	5.1E-05	5.3E-05	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00		

TABLE C.5-11
SCENARIO 5
CANCER RISK ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK
														3.2E-08 CHILD MEAN
														3.3E-08 ADULT MEAN
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST														5.2E-08 CHILD MAXIMUM
														5.4E-08 ADULT MAXIMUM
INORGANICS														
Aluminum	3.1E-07	3.2E-07	4.0E-07	4.2E-07	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Antimony	1.1E-10	1.1E-10	2.1E-10	2.2E-10	No	NA			NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Arsenic	1.9E-10	2.0E-10	3.4E-10	3.5E-10	No	5.0E+01	A	Respiratory tract	Occupational/IRIS	9.7E-09	1.0E-08	1.7E-08	1.8E-08	
Barium	7.4E-10	7.6E-10	1.1E-09	1.1E-09	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Beryllium	1.0E-11	1.1E-11	1.8E-11	1.9E-11	No	8.4E+00	B2	Lung	Occupational/IRIS	8.7E-11	9.1E-11	1.5E-10	1.6E-10	
Cadmium	1.5E-11	1.6E-11	3.6E-11	3.7E-11	No	6.3E+00	B1	Respiratory tract	Occupational/IRIS	9.7E-11	1.0E-10	2.3E-10	2.3E-10	
Chromium	5.0E-10	5.1E-10	7.2E-10	7.4E-10	No	4.2E+01	A	Lung	Occupational/IRIS	2.1E-08	2.2E-08	3.0E-08	3.1E-08	
Cobalt	3.1E-10	3.2E-10	7.6E-10	7.9E-10	No	NA	D		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Copper	7.9E-10	8.2E-10	1.7E-09	1.7E-09	No	NA	D		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Lead	9.8E-10	1.0E-09	3.0E-09	3.1E-09	No	NA	B2		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Manganese	9.6E-09	1.0E-08	2.9E-08	3.0E-08	No	NA	D		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Mercury	2.9E-12	3.0E-12	8.5E-12	8.7E-12	No	NA	D		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Nickel	4.1E-10	4.3E-10	9.8E-10	1.0E-09	No	8.4E-01	A	Lung and nasal tumors	Occupational/IRIS	3.5E-10	3.6E-10	8.2E-10	8.5E-10	
Selenium	9.7E-12	1.0E-11	2.0E-11	2.1E-11	No	NA	D		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Zinc	2.0E-09	2.1E-09	5.4E-09	5.6E-09	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.80E-01	C	Mammary gland, liver	IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.9E-02	A	Leukemia	Occupational/IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8.10E-02	B2	Liver	IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chloromethane	3.6E-13	3.8E-13	4.6E-13	4.7E-13	No	6.00E-03	C	Kidney	Inhalation/HEAST	2.2E-15	2.3E-15	2.7E-15	2.8E-15	
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.0E-03	B2	Leukemia	HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Tetrachloroethene	1.1E-13	1.1E-13	7.6E-14	7.9E-14	No	1.8E-03	B2	Leukemia, liver	HEAST	1.9E-16	2.0E-16	1.4E-16	1.4E-16	
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.00E-01	A	Liver	Inhalation/HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
SEMIVOLATILES														
Acenaphthene	1.4E-11	1.5E-11	3.6E-11	3.7E-11	No	NA			IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Acenaphthylene	1.5E-11	1.5E-11	2.0E-11	2.1E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Anthracene	1.4E-11	1.4E-11	5.7E-11	5.9E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzo(a)anthracene	1.7E-11	1.8E-11	1.3E-10	1.3E-10	No	6.1E+00	B2	Liver, lung, skin	IRIS	1.1E-10	1.1E-10	7.7E-10	7.9E-10	
Benzo(a)pyrene	1.4E-11	1.5E-11	1.0E-10	1.1E-10	No	6.1E+00	B2	Stomach, respiratory tract	Inhalation/HEAST	8.7E-11	9.0E-11	6.3E-10	6.5E-10	
Benzo(b)fluoranthene	1.6E-11	1.7E-11	1.1E-10	1.1E-10	No	6.1E+00	B2	Lung, thorax, skin	IRIS	9.8E-11	1.0E-10	6.5E-10	6.7E-10	
Benzo(ghi)perylene	1.5E-11	1.5E-11	2.0E-11	2.1E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Benzo(k)fluoranthene	1.4E-11	1.4E-11	1.2E-10	1.2E-10	No	6.1E+00	B2	Lung, thorax, skin	IRIS	8.3E-11	8.6E-11	7.2E-10	7.5E-10	
Bis(2ethylhexyl)phthalate	1.3E-11	1.3E-11	2.2E-11	2.3E-11	No	NA	B2		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Butylbenzylphthalate	1.5E-11	1.5E-11	2.0E-11	2.1E-11	No	NA	C		IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chrysene	1.7E-11	1.7E-11	1.1E-10	1.1E-10	No	6.1E+00	B2	Malignant lymphoma	IRIS	0.0E+00	0.0E+00	6.5E-10	6.7E-10	
Dibenzofuran	1.4E-11	1.4E-11	2.5E-11	2.6E-11	No	NA	D		IRIS	8.2E-11	8.5E-11	0.0E+00	0.0E+00	
Dibenzo(a,h)anthracene	1.5E-11	1.5E-11	2.0E-11	2.1E-11	No	6.1E+00	B2	Lung, mammary	IRIS	8.9E-11	9.2E-11	1.2E-10	1.3E-10	
Di-n-butylphthalate	1.6E-11	1.7E-11	2.0E-11	2.1E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Di-n-octylphthalate	1.5E-11	1.5E-11	2.0E-11	2.1E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Fluoranthene	1.4E-11	1.4E-11	3.0E-10	3.2E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Fluorene	1.5E-11	1.5E-11	4.6E-11	4.7E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Indeno(123cd)pyrene	1.5E-11	1.5E-11	2.0E-11	2.1E-11	No	6.1E+00	B2	Lung, skin	IRIS	8.9E-11	9.2E-11	1.2E-10	1.3E-10	
Naphthalene	1.3E-11	1.3E-11	2.0E-11	2.1E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Phenanthrene	1.7E-11	1.7E-11	2.7E-10	2.8E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Phenol	1.5E-11	1.5E-11	2.0E-11	2.1E-11	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Pyrene	1.6E-11	1.7E-11	2.2E-10	2.2E-10	No	NA	D		IRIS	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
PESTICIDES														
4,4'-DDE	2.2E-13	2.3E-13	3.1E-13	3.2E-13	No	NA	B2		HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
4,4'-DDT	1.9E-13	2.0E-13	3.4E-13	3.5E-13	No	3.4E-01	B2	Liver	Diet/IRIS,HEAST	6.6E-14	6.8E-14	1.1E-13	1.2E-13	

TABLE C.5-12
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONF. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MF	HI CHILD MEAN	HI ADULT MEAN	HI CHILD MAX	HI ADULT MAX	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)	
																4.1E+00	4.4E+00	CHILD MEAN
																2.3E+00	2.3E+00	ADULT MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER																1.6E+01	1.6E+01	CHILD MAXIMUM
																8.6E+00	8.8E+00	ADULT MAXIMUM
INORGANICS																		
Aluminum	6.4E-01	3.6E-01	2.2E+00	1.2E+00	No	NA			NA/HEAST									
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Arsenic	2.1E-04	1.2E-04	8.2E-04	4.5E-04	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		2.1E-01	1.2E-01	8.2E-01	4.5E-01			
Barium	5.0E-03	2.8E-03	2.8E-02	1.6E-02	No	7E-02	Medium	None observed	Water/IRIS	3	1	7.2E-02	4.0E-02	4.0E-01	2.2E-01			
Beryllium	3.4E-05	1.9E-05	1.2E-04	6.6E-05	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	6.8E-03	3.7E-03	2.4E-02	1.3E-02			
Cadmium	1.5E-04	8.2E-05	2.4E-03	1.3E-03	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	1.5E-01	8.2E-02	2.4E+00	1.3E+00			
Chromium	1.1E-03	6.2E-04	2.3E-03	1.3E-03	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	2.3E-01	1.2E-01	4.7E-01	2.6E-01			
Cobalt	1.3E-03	7.2E-04	2.6E-03	1.4E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Copper	3.1E-03	1.7E-03	5.1E-02	2.8E-02	No	4E-02		Local GI irritation	HEAST			7.8E-02	4.3E-02	1.3E+00	7.1E-01			
Lead	5.6E-03	3.1E-03	2.0E-01	1.1E-01	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA			
Manganese	2.2E-01	1.2E-01	4.3E-01	2.4E-01	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	2.2E+00	1.2E+00	4.3E+00	2.4E+00			
Mercury	1.5E-05	8.4E-06	1.0E-04	5.8E-05	No	3E-04		Kidney effects	Oral/HEAST	1000		5.1E-02	2.8E-02	3.5E-01	1.9E-01			
Nickel	1.9E-03	1.1E-03	4.0E-03	2.2E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Zinc	2.2E-02	1.2E-02	8.2E-01	3.4E-01	No	2E-01		Anemia	Therapeutic/HEAST	10		1.1E-01	6.1E-02	3.1E+00	1.7E+00			
VOLATILES																		
1,1-Dichloroethene	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	2.5E-02	1.4E-02	1.4E-01	7.6E-02			
1,1,2,2-Tetrachloroethane	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Benzene	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Carbon disulfide	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	2.3E-03	1.2E-03	1.2E-02	6.8E-03			
Chloroform	2.2E-04	1.2E-04	1.2E-03	6.8E-04	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	2.2E-02	1.2E-02	1.2E-01	6.8E-02			
Chloromethane	4.5E-04	2.5E-04	2.5E-03	1.4E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Ethylbenzene	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	2.3E-03	1.2E-03	1.2E-02	6.8E-03			
Styrene	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	1.1E-03	6.2E-04	6.2E-03	3.4E-03			
Tetrachloroethene	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	2.3E-02	1.2E-02	1.2E-01	6.8E-02			
Toluene	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	1.1E-03	6.2E-04	6.2E-03	3.4E-03			
Vinyl chloride	4.5E-04	2.5E-04	2.5E-03	1.4E-03	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		4.5E-04	2.5E-04	2.5E-03	1.4E-03			
Xylenes	2.3E-04	1.2E-04	1.2E-03	6.8E-04	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	1.1E-04	6.2E-05	6.2E-04	3.4E-04			
SEMIVOLATILES																		
Acenaphthene	3.2E-04	1.8E-04	1.2E-03	6.6E-04	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	5.4E-03	3.0E-03	2.0E-02	1.1E-02			
Acenaphthylene	3.3E-04	1.8E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			8.2E-02	4.5E-02	1.2E-01	6.8E-02			
Anthracene	3.2E-04	1.8E-04	5.0E-04	2.7E-04	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	1.1E-03	5.9E-04	1.7E-03	9.1E-04			
Benzo(a)anthracene	2.8E-04	1.4E-04	5.0E-04	2.7E-04	No	4E-03			IRIS,HEAST			6.4E-02	3.6E-02	1.2E-01	6.8E-02			
Benzo(a)pyrene	2.4E-04	1.3E-04	5.0E-04	2.7E-04	No	4E-03			IRIS,HEAST			5.9E-02	3.3E-02	1.2E-01	6.8E-02			
Benzo(b)fluoranthene	2.1E-04	1.1E-04	5.0E-04	2.7E-04	No	4E-03			IRIS,HEAST			5.2E-02	2.9E-02	1.2E-01	6.8E-02			
Benzo(ghi)perylene	2.8E-04	1.6E-04	5.0E-04	2.7E-04	No	4E-03			IRIS,HEAST			7.1E-02	3.9E-02	1.2E-01	6.8E-02			
Benzo(k)fluoranthene	2.8E-04	1.6E-04	5.0E-04	2.7E-04	No	4E-03			IRIS,HEAST			7.1E-02	3.9E-02	1.2E-01	6.8E-02			
Bis(2ethylhexyl)phthalate	2.9E-04	1.6E-04	5.0E-04	2.7E-04	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.5E-02	8.1E-03	2.5E-02	1.4E-02			
Butylbenzylphthalate	2.9E-04	1.6E-04	5.0E-04	2.7E-04	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	1.4E-03	7.9E-04	2.5E-03	1.4E-03			
Chrysene	2.7E-04	1.5E-04	5.0E-04	2.7E-04	No	4E-03			NA/HEAST			6.8E-02	3.8E-02	1.2E-01	6.8E-02			
Dibenzofuran	2.4E-04	1.3E-04	5.0E-04	2.7E-04	No	4E-03			NA/HEAST	1000		5.9E-02	3.3E-02	1.2E-01	6.8E-02			
Dibenzo(a,h)anthracene	2.8E-04	1.6E-04	5.0E-04	2.7E-04	No	4E-03			IRIS,HEAST			7.1E-02	3.9E-02	1.2E-01	6.8E-02			
Di-n-butylphthalate	3.3E-04	1.8E-04	5.0E-04	2.7E-04	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	3.3E-03	1.8E-03	5.0E-03	2.7E-03			
Di-n-octylphthalate	2.9E-04	1.6E-04	5.0E-04	2.7E-04	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		1.4E-02	7.9E-03	2.5E-02	1.4E-02			
Fluoranthene	3.0E-04	1.6E-04	5.0E-04	2.7E-04	No	4E-02	Low	Nephropathy,changes in liver weight	Gavage/IRIS	3000	1	7.4E-03	4.1E-03	1.2E-02	6.8E-03			
Fluorene	3.8E-04	2.1E-04	1.0E-03	5.8E-04	No	4E-02	Low		Gavage/IRIS	3000	1	9.5E-03	5.2E-03	2.6E-02	1.4E-02			
Indeno(123cd)pyrene	2.8E-04	1.6E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			7.1E-02	3.9E-02	1.2E-01	6.8E-02			
Naphthalene	2.8E-04	1.6E-04	5.0E-04	2.7E-04	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		7.1E-02	3.9E-02	1.2E-01	6.8E-02			
Phenanthrene	4.4E-04	2.4E-04	2.2E-03	1.2E-03	No	4E-03			NA/HEAST			1.1E-01	6.1E-02	5.5E-01	3.0E-01			
Phenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00			
Pyrene	3.9E-04	2.1E-04	1.1E-03	6.3E-04	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.3E-02	7.1E-03	3.8E-02	2.1E-02			
PESTICIDES																		
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00			

TABLE C.5-13
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MF	HI CHILD MEAN	HI ADULT MEAN	HI CHILD MAX	HI ADULT MAX	PATHWAY HAZARD INDEX (HI)	
																2.1E-03	CHILD MEAN
																4.4E-04	ADULT MEAN
																1.1E-02	CHILD MAXIMUM
																2.3E-03	ADULT MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																	
VOLATILES																	
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Chloromethane	1.6E-07	3.3E-06	2.0E-07	4.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Low	Liver and kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Tetrachloroethene	4.6E-06	9.6E-09	3.3E-06	6.8E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1'	4.6E-06	9.6E-07	3.3E-06	6.8E-07		
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00	0.0E+00	0.0E+00		
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00		
SEMIVOLATILES																	
Acenaphthene	6.2E-07	1.3E-07	1.6E-06	3.2E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	1.0E-05	2.2E-06	2.6E-06	5.4E-06		
Acenaphthylene	6.4E-07	1.3E-07	8.6E-07	1.6E-07	No	4E-03			NA/IRIS,HEAST			1.6E-04	3.3E-05	2.1E-04	4.5E-05		
Anthracene	6.0E-07	1.2E-07	2.5E-06	5.1E-07	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	2.0E-06	4.1E-07	8.3E-06	1.7E-06		
Benzo(a)anthracene	7.5E-07	1.5E-07	5.5E-06	1.1E-06	No	4E-03			IRIS,HEAST			1.9E-04	3.9E-05	1.4E-03	2.8E-04		
Benzo(a)pyrene	6.2E-07	1.3E-07	4.5E-06	9.2E-07	No	4E-03			IRIS,HEAST			1.6E-04	3.2E-05	1.1E-03	2.3E-04		
Benzo(b)fluoranthene	7.0E-07	1.5E-07	4.8E-06	9.6E-07	No	4E-03			IRIS,HEAST			1.8E-04	3.6E-05	1.2E-03	2.4E-04		
Benzo(ghi)perylene	6.4E-07	1.3E-07	8.6E-07	1.8E-07	No	4E-03			IRIS,HEAST			1.6E-04	3.3E-05	2.1E-04	4.5E-05		
Benzo(k)fluoranthene	5.9E-07	1.2E-07	5.1E-06	1.1E-06	No	4E-03			IRIS,HEAST			1.5E-04	3.1E-05	1.3E-03	2.7E-04		
Bis(2ethylhexyl)phthalate	5.5E-07	1.1E-07	9.6E-07	2.0E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.7E-05	5.7E-06	4.9E-05	1.0E-05		
Butylbenzylphthalate	6.4E-07	1.3E-07	8.6E-07	1.8E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	3.2E-06	6.6E-07	4.3E-06	8.9E-07		
Chrysene	7.2E-07	1.5E-07	4.8E-06	9.6E-07	No	4E-03			NA/HEAST			1.8E-04	3.7E-05	1.2E-03	2.4E-04		
Dibenzofuran	5.9E-07	1.2E-07	1.1E-06	2.2E-07	No	4E-03			NA/HEAST	1000		1.5E-04	3.0E-05	2.7E-04	5.6E-05		
Dibenzo(a,h)anthracene	6.4E-07	1.3E-07	8.6E-07	1.8E-07	No	4E-03			IRIS,HEAST			1.6E-04	3.3E-05	2.1E-04	4.5E-05		
Di-n-butylphthalate	7.1E-07	1.5E-07	9.6E-07	1.9E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	7.1E-06	1.5E-06	9.6E-06	1.9E-06		
Di-n-octylphthalate	6.4E-07	1.3E-07	8.6E-07	1.8E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		3.2E-06	6.6E-06	4.3E-06	8.9E-06		
Fluoranthene	5.9E-07	1.2E-07	1.3E-06	2.7E-06	No	4E-02	Low	Nephropathy,changes in liver weight	Gavage/IRIS	3000	1	1.5E-05	3.1E-06	3.3E-04	6.8E-05		
Fluorene	6.5E-07	1.3E-07	2.0E-06	4.1E-07	No	4E-02	Low		Gavage/IRIS	3000	1	1.6E-05	3.4E-06	5.0E-06	1.0E-06		
Indeno(123cd)pyrene	6.4E-07	1.3E-07	8.6E-07	1.8E-07	No	4E-03			NA/IRIS,HEAST			1.6E-04	3.3E-05	2.1E-04	4.5E-05		
Naphthalene	5.6E-07	1.2E-07	8.6E-07	1.8E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.4E-04	2.9E-05	2.1E-04	4.5E-05		
Phenanthrene	7.2E-07	1.5E-07	1.2E-05	2.5E-06	No	4E-03			NA/HEAST			1.8E-04	3.7E-05	3.0E-03	6.2E-04		
Phenol	6.4E-07	1.3E-07	8.6E-07	1.8E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	1.1E-06	2.2E-07	1.4E-06	3.0E-07		
Pyrene	7.2E-07	1.5E-07	9.4E-06	2.0E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	2.4E-05	4.9E-06	3.1E-04	6.5E-05		
PESTICIDES																	
4,4'-DDE	9.7E-09	2.0E-09	1.3E-08	2.8E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
4,4'-DDT	8.4E-09	1.7E-09	1.5E-08	3.0E-09	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.7E-05	3.5E-06	2.9E-05	6.0E-06		

TABLE C.5-14
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MOD FACT	HI CHILD MEAN	HI ADULT MEAN	HI CHILD MAX	HI ADULT MAX	PATHWAY HAZARD INDEX (HI)
																2.7E-01 CHILD MEAN
																2.8E-02 ADULT MEAN
																5.9E-01 CHILD MAXIMUM
																6.1E-02 ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST																
INORGANICS																
Aluminum	1.1E-01	1.1E-02	1.4E-01	1.5E-02	No	NA			NA/HEAST			NA	NA	NA	NA	
Antimony	3.8E-06	3.9E-06	7.4E-06	7.7E-06	No	4E-04	Low	Longevity, blood glucose and cholesterol	Water/IRIS,HEAST	1000	1	9.5E-02	9.8E-03	1.9E-01	1.9E-02	
Arsenic	6.8E-05	7.0E-06	1.2E-04	1.2E-05	No	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		6.8E-02	7.0E-03	1.2E-01	1.2E-02	
Barium	2.6E-04	2.6E-05	3.7E-04	3.9E-05	No	7E-02	Medium	None observed	Water/IRIS	3	1	3.6E-03	3.8E-04	5.3E-03	5.5E-04	
Beryllium	3.6E-06	3.7E-07	6.3E-06	6.6E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	7.2E-04	7.5E-05	1.3E-03	1.3E-04	
Cadmium	5.3E-06	5.5E-07	1.2E-05	1.3E-06	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	5.3E-03	5.5E-04	1.2E-02	1.3E-03	
Chromium	1.7E-04	1.8E-05	2.5E-04	2.6E-05	No	5E-03	Low	No effects observed	Water/IRIS,HEAST	500	1	3.4E-02	3.6E-03	5.0E-02	5.2E-03	
Cobalt	1.1E-04	1.1E-05	2.6E-04	2.7E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Copper	2.7E-04	2.8E-05	5.9E-04	6.1E-05	No	4E-02		Local GI irritation	HEAST			6.9E-03	7.1E-04	1.5E-02	1.5E-03	
Lead	1.7E-04	1.1E-05	5.1E-04	3.2E-05	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA	
Manganese	3.3E-03	3.5E-04	9.9E-03	1.0E-03	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	3.3E-02	3.5E-03	9.9E-02	1.0E-02	
Mercury	9.9E-07	1.0E-07	2.2E-06	2.3E-07	No	3E-04		Kidney effects	Oral/HEAST	1000		3.3E-03	3.4E-04	7.5E-03	7.8E-04	
Nickel	1.4E-04	1.5E-05	3.4E-04	3.5E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Selenium	3.4E-06	3.5E-07	7.0E-06	7.3E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	6.7E-04	7.0E-05	1.4E-03	1.5E-04	
Zinc	7.1E-04	7.3E-05	1.9E-03	1.9E-04	No	2E-01		Anemia	Therapeutic/HEAST	10		3.5E-03	3.7E-04	9.4E-03	9.7E-04	
VOLATILES																
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9E-03	Medium	Hepatic Lesions	Water/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Chloromethane	1.3E-07	1.3E-08	1.6E-07	1.6E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Low	Liver and Kidney effects	Oral/IRIS,HEAST	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Tetrachloroethene	3.7E-08	3.8E-09	2.6E-08	2.7E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	3.7E-06	3.8E-07	2.6E-06	2.7E-07	
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E+00		No effect on body and kidney weight	Water/HEAST	100		0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity and increased mortality	Gavage/IRIS	100	1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
SEMIVOLATILES																
Acenaphthene	5.0E-06	5.2E-07	1.2E-05	1.3E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	3000	1	8.3E-05	8.6E-06	2.1E-04	2.1E-05	
Acenaphthylene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	No	4E-03			NA/IRIS,HEAST			1.3E-03	1.3E-04	1.7E-03	1.8E-04	
Anthracene	4.8E-06	5.0E-07	2.0E-05	2.1E-06	No	3.0E-01	Low	No adverse effect	Gavage/IRIS,HEAST	3000	1	1.6E-05	1.7E-06	6.6E-05	6.8E-06	
Benzo(a)anthracene	6.0E-06	6.2E-07	4.4E-05	4.5E-06	No	4E-03			IRIS,HEAST			1.5E-03	1.5E-04	1.1E-02	1.1E-03	
Benzo(a)pyrene	5.0E-06	5.1E-07	3.6E-05	3.7E-06	No	4E-03			IRIS,HEAST			1.2E-03	1.3E-04	8.9E-03	9.2E-04	
Benzo(b)fluoranthene	5.6E-06	5.8E-07	3.7E-05	3.8E-06	No	4E-03			IRIS,HEAST			1.4E-03	1.5E-04	9.3E-03	9.6E-04	
Benzo(ghi)perylene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	No	4E-03			IRIS,HEAST			1.3E-03	1.3E-04	1.7E-03	1.8E-04	
Benzo(k)fluoranthene	4.7E-06	4.9E-07	4.1E-05	4.2E-06	No	4E-03			IRIS,HEAST			1.2E-03	1.2E-04	1.0E-02	1.1E-03	
Bis(2ethylhexyl)phthalate	4.4E-06	4.5E-07	7.8E-06	8.1E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.2E-04	2.3E-05	3.9E-04	4.0E-05	
Butylbenzylphthalate	5.1E-06	5.3E-07	6.9E-06	7.1E-07	No	2E-01	Low	Effects weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	2.5E-05	2.6E-06	3.4E-05	3.6E-06	
Chrysene	5.8E-06	6.0E-07	3.7E-05	3.8E-06	No	4E-03			NA/HEAST			1.4E-03	1.5E-04	9.3E-03	9.6E-04	
Dibenzofuran	4.7E-06	4.9E-07	6.8E-06	6.9E-07	No	4E-03			NA/HEAST	1000		1.2E-03	1.2E-04	2.1E-03	2.2E-04	
Dibenzo(a,h)anthracene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	No	4E-03			IRIS,HEAST			1.3E-03	1.3E-04	1.7E-03	1.8E-04	
Di-n-butylphthalate	5.7E-06	5.9E-07	6.9E-06	7.1E-07	No	1E-01	Low	Increased Mortality	Diet/IRIS	1000	1	5.7E-05	5.9E-06	6.9E-05	7.1E-06	
Di-n-octylphthalate	5.1E-06	5.3E-07	6.9E-06	7.1E-07	No	2E-02		Increased kidney weights and SGOT, SGPT	Diet/HEAST	1000		2.5E-04	2.6E-05	3.4E-04	3.6E-05	
Fluoranthene	4.7E-06	4.9E-07	1.1E-04	1.1E-05	No	4E-02	Low	Nephropathy,changes in liver weight	Gavage/IRIS	3000	1	1.2E-04	1.2E-05	2.6E-03	2.7E-04	
Fluorene	5.2E-06	5.4E-07	1.6E-05	1.6E-06	No	4E-02	Low		Gavage/IRIS	3000	1	1.3E-04	1.3E-05	4.0E-04	4.1E-05	
Indeno(123cd)pyrene	5.1E-06	5.3E-07	6.9E-06	7.1E-07	No	4E-03			NA/IRIS,HEAST			1.3E-03	1.3E-04	1.7E-03	1.8E-04	
Naphthalene	4.5E-06	4.6E-07	6.9E-06	7.1E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10000		1.1E-03	1.2E-04	1.7E-03	1.8E-04	
Phenanthrene	5.8E-06	6.0E-07	9.5E-05	9.9E-06	No	4E-03			NA/HEAST			1.4E-03	1.5E-04	2.4E-02	2.5E-03	
Phenol	5.1E-06	5.3E-07	6.9E-06	7.1E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	100	1	8.5E-06	8.8E-07	1.1E-05	1.2E-06	
Pyrene	5.7E-06	5.9E-07	7.5E-06	7.8E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.9E-04	2.0E-05	2.5E-03	2.6E-04	
PESTICIDES																
4,4'-DDE	2.3E-08	2.4E-09	3.2E-08	3.3E-09	No	NA			NA/IRIS,HEAST							
4,4'-DDT	2.0E-08	2.1E-09	3.5E-08	3.6E-09	No	5.0E-04	Medium	Liver lesions	Diet/IRIS	100	1	4.0E-05	4.2E-06	7.0E-05	7.2E-06	

TABLE C.5-15
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MF	HI CHILD MEAN	HI ADULT MEAN	HI CHILD MAX	HI ADULT MAX	PATHWAY HAZARD INDEX (HI)	
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS																3.8E-02	CHILD MEAN
																7.9E-03	ADULT MEAN
																2.1E-01	CHILD MAXIMUM
																4.3E-02	ADULT MAXIMUM
VOLATILES																	
1,1-Dichloroethene	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	NA			IRIS,HEAST			NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	3.0E-01		Hepatotoxicity	HEAST	UF=1000		3.8E-04	7.5E-05	2.0E-03	4.1E-04		
Benzene	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Carbon disulfide	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	3.0E-03		Fetal toxicity	HEAST	UF=1000		3.8E-02	7.5E-03	2.0E-01	4.1E-02		
Chloroform	1.0E-04	2.1E-05	6.0E-04	1.2E-04	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Chloromethane	2.2E-04	4.5E-05	1.2E-03	2.5E-04	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Ethylbenzene	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	3.0E-01	Low	Developmental toxicity	IRIS	UF=300	MF=	3.8E-04	7.5E-05	2.0E-03	4.1E-04		
Styrene	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Tetrachloroethene	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Toluene	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	6.0E-01		CNS effects, eyes and nose irritation	HEAST	UF=100		1.8E-04	3.7E-05	9.9E-04	2.1E-04		
Vinyl chloride	2.2E-04	4.5E-05	1.2E-03	2.5E-04	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Xylenes	1.1E-04	2.2E-05	6.0E-04	1.2E-04	No	9.0E-02		CNS effects, eyes and nose irritation	HEAST	UF=100		1.2E-03	2.5E-04	6.6E-03	1.4E-03		

TABLE C.5-16
SCENARIO 5
CHRONIC HAZARD INDEX ESTIMATES
OLD FIRE FIGHTING TRAINING AREA

COMPOUND NAME	CDI-CHILD MEAN (mg/kg/day)	CDI-ADULT MEAN (mg/kg/day)	CDI-CHILD MAX (mg/kg/day)	CDI-ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MF	HI CHILD MEAN	HI ADULT MEAN	HI CHILD MAX	HI ADULT MAX
EXPOSURE PATHWAY: OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST															
INORGANICS															
Aluminum	3.6E-06	7.4E-07	4.7E-06	9.6E-07	No	NA			NA/HEAST			NA	NA	NA	NA
Antimony	1.3E-09	2.6E-10	2.5E-09	5.2E-10	No	4.0E-04						3.2E-06	6.6E-07	6.2E-06	1.3E-06
Arsenic	2.3E-09	4.7E-10	4.0E-09	8.2E-10	No	1.0E-03						2.3E-06	4.7E-07	4.0E-06	8.2E-07
Barium	9.6E-09	1.9E-09	1.3E-08	2.6E-09	No	1.0E-04		Fetotoxicity	HEAST	UF=1000		9.6E-05	1.9E-05	1.3E-04	2.6E-05
Beryllium	1.2E-10	2.5E-11	2.1E-10	4.4E-11	No	5.0E-03						2.4E-06	5.0E-07	4.3E-06	8.9E-07
Cadmium	1.8E-10	3.7E-11	4.2E-10	8.7E-11	No	1.0E-03						1.8E-07	3.7E-08	4.2E-07	8.7E-08
Chromium	5.8E-09	1.2E-09	8.4E-09	1.7E-09	No	6.0E-04		Nasal mucosa atrophy	HEAST	UF=300		9.7E-06	2.0E-06	1.4E-05	2.9E-06
Cobalt	3.6E-09	7.4E-10	6.9E-09	1.4E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Copper	9.2E-09	1.9E-09	2.0E-08	4.1E-09	No	NA			IRIS,HEAST			NA	NA	NA	NA
Lead	1.1E-08	2.4E-09	3.5E-08	7.2E-09	No	NA		CNS effects	IRIS,HEAST			NA	NA	NA	NA
Manganese	1.1E-07	2.3E-08	3.3E-07	6.9E-08	No	1.0E-04	Medium	Increased resp. disease,psychomotor disturt	Occupational/IRIS	UF=300	MF=	1.1E-03	2.3E-04	3.3E-03	6.9E-04
Mercury	3.3E-11	6.9E-12	7.6E-11	1.6E-11	No	9.0E-06		Neurotoxicity	Occupational/HEAST	UF=30		3.7E-06	7.7E-07	8.4E-06	1.7E-06
Nickel	4.8E-09	1.0E-09	1.1E-08	2.4E-09	No	NA			IRIS,HEAST			NA	NA	NA	NA
Selenium	1.1E-10	2.3E-11	2.4E-10	4.9E-11	No	NA			IRIS,HEAST			NA	NA	NA	NA
Zinc	2.4E-08	4.9E-09	5.3E-08	1.1E-08	No	2.0E-01						1.2E-07	2.5E-08	3.2E-07	6.5E-08
VOLATILES															
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-01		Hepatotoxicity	HEAST	UF=1000		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-03		Fetal toxicity	HEAST	UF=1000		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Chloromethane	4.2E-12	8.8E-13	5.3E-12	1.1E-12	No	NA			IRIS,HEAST			NA	NA	NA	NA
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-01	Low	Developmental toxicity	IRIS	UF=300	MF=	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Tetrachloroethene	1.2E-12	2.6E-13	8.9E-13	1.8E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8.0E-01		CNS effects, eyes and nose irritation	HEAST	UF=100		0.0E+00	0.0E+00	0.0E+00	0.0E+00
Vinyl chloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Xylenes	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9.0E-02		CNS effects, eyes and nose irritation	HEAST	UF=100		0.0E+00	0.0E+00	0.0E+00	0.0E+00
SEMIVOLATILES															
Acenaphthene	1.7E-10	3.5E-11	4.2E-10	8.7E-11	No	6.0E-02						2.8E-09	5.8E-10	7.0E-09	1.4E-09
Acenaphthylene	1.7E-10	3.5E-11	2.3E-10	4.8E-11	No	4.0E-03			IRIS,HEAST			4.3E-06	8.8E-09	5.8E-06	1.2E-06
Anthracene	1.8E-10	3.3E-11	6.7E-10	1.4E-10	No	3.0E-01						5.4E-10	1.1E-10	2.2E-09	4.6E-10
Benzo(a)anthracene	2.0E-10	4.2E-11	1.5E-09	3.0E-10	No	4.0E-03			IRIS,HEAST			5.0E-06	1.0E-06	3.7E-07	7.6E-08
Benzo(a)pyrene	1.7E-10	3.5E-11	1.2E-09	2.5E-10	No	4.0E-03			IRIS,HEAST			4.2E-06	8.6E-09	3.0E-07	6.2E-08
Benzo(b)fluoranthene	1.9E-10	3.9E-11	1.2E-09	2.6E-10	No	4.0E-03			IRIS,HEAST			4.7E-06	9.6E-09	3.1E-07	6.4E-08
Benzo(ghi)perylene	1.7E-10	3.5E-11	2.3E-10	4.8E-11	No	4.0E-03			IRIS,HEAST			4.3E-06	8.8E-09	5.8E-06	1.2E-06
Benzo(k)fluoranthene	1.6E-10	3.3E-11	1.4E-09	2.9E-10	No	4.0E-03			IRIS,HEAST			4.0E-06	8.2E-09	3.4E-07	7.1E-08
Bis(2ethylhexyl)phthalate	1.5E-10	3.0E-11	2.6E-10	5.4E-11	No	2.0E-02						7.3E-09	1.5E-09	1.3E-08	2.7E-09
Butylbenzylphthalate	1.7E-10	3.5E-11	2.3E-10	4.8E-11	No	2.0E-01						8.5E-10	1.8E-10	1.2E-09	2.4E-10
Chrysene	1.9E-10	4.0E-11	1.2E-09	2.6E-10	No	4.0E-03			HEAST			4.9E-06	1.0E-06	3.1E-07	6.4E-08
Dibenzofuran	1.6E-10	3.3E-11	2.9E-10	6.0E-11	No	4.0E-03			HEAST			3.9E-06	8.2E-09	7.2E-06	1.5E-06
Dibenzo(a,h)anthracene	1.7E-10	3.5E-11	2.3E-10	4.8E-11	No	4.0E-03			IRIS,HEAST			4.3E-06	8.8E-09	5.8E-06	1.2E-06
Di-n-butylphthalate	1.9E-10	4.0E-11	2.3E-10	4.8E-11	No	1.0E-01						1.9E-09	4.0E-10	2.3E-09	4.8E-10
Di-n-octylphthalate	1.7E-10	3.5E-11	2.3E-10	4.8E-11	No	2.0E-02						8.5E-09	1.8E-09	1.2E-08	2.4E-09
Fluoranthene	1.6E-10	3.3E-11	3.6E-09	7.4E-10	No	4.0E-02						4.0E-09	8.2E-10	8.9E-08	1.8E-08
Fluorene	1.7E-10	3.6E-11	5.3E-10	1.1E-10	No	4.0E-02						4.4E-09	9.0E-10	1.3E-08	2.8E-09
Indeno(123cd)pyrene	1.7E-10	3.5E-11	2.3E-10	4.8E-11	No	4.0E-03			IRIS,HEAST			4.3E-06	8.8E-09	5.8E-06	1.2E-06
Naphthalene	1.5E-10	3.1E-11	2.3E-10	4.8E-11	No	4.0E-03						3.7E-06	7.8E-09	5.8E-06	1.2E-06
Phenanthrene	1.9E-10	4.0E-11	3.2E-09	6.6E-10	No	4.0E-03			HEAST			4.8E-06	1.0E-06	8.0E-07	1.7E-07
Phenol	1.7E-10	3.5E-11	2.3E-10	4.8E-11	No	NA			HEAST						
Pyrene	1.9E-10	4.0E-11	2.5E-09	5.2E-10	No	3.0E-02						6.4E-06	1.3E-06	8.4E-06	1.7E-06
PESTICIDES															
4,4'-DDE	2.6E-12	5.4E-13	3.6E-12	7.5E-13	No	NA			IRIS,HEAST						
4,4'-DDT	2.3E-12	4.7E-13	3.9E-12	8.1E-13	No	5.0E-04						4.5E-09	9.4E-10	7.8E-09	1.6E-09

PATHWAY HAZARD INDEX (HI)	
1.2E-03	CHILD MEAN
2.5E-04	ADULT MEAN
3.5E-03	CHILD MAXIMUM
7.2E-04	ADULT MAXIMUM

APPENDIX D

RISK ASSESSMENT METHODS

TANK FARM 4

TRC

APPENDIX D

RISK ASSESSMENT METHODS

Four different exposure scenarios were included in the risk assessment for Tank Farm Four. A trespasser scenario involves exposures to the site as it currently exists, and three scenarios involve exposures related to potential future uses (construction, commercial/industrial and residential uses) of the site. A current use scenario involving off-site receptors is not needed because there are no downgradient wells or basements which could be impacted by contaminants migrating in ground water. The scenarios are briefly described below. Model equations and parameter values for each exposure pathway follow.

SCENARIO 1: Current Use - Trespassing

Children may trespass on the site as it currently exists to play on soil above the underground tanks, in the vicinity of the tank valve houses and the oil/water separator. Therefore, there is the potential for contact with contaminated soil. No direct exposure to tank contents is possible. Although the entire site is fenced, evidence of trespassing has been observed. As a result, children may receive dermal and ingestion exposures to contaminants in soils and surface water (there is a stream on-site). It is assumed that children trespass onto the site 350 days per year due to its close proximity to private housing, that children are unlikely to enter the site on a regular basis before the age of 6, and regular exposures are not expected beyond the age of 18 due to changes in the use of recreational time.

Adults may trespass onto the site as it currently exists (an adult male is known to walk his dog regularly on the site). They may receive dermal and

ingestion exposures to soil contaminants and dermal exposure to surface water. It is assumed, therefore, that adults may cross the site 350 days/year.

SCENARIO 2: Future Use - Construction

In the future, construction workers may be involved in building an commercial/industrial facility on the site. Through excavation and site preparation activities, they could receive extensive inhalation exposure to contaminants in dust, as well as dermal and ingestion exposures to contaminants in soil. It is assumed that excavation and site preparation activities would last for a 12 month period, and that no remediation of contaminants would occur prior to construction or occupation of the residential/commercial/industrial sites (addressed below). No surface water or ground water exposure is anticipated in this scenario.

SCENARIO 3: Future Use - Commercial/Industrial

Future use of the site for commercial/industrial purposes presents a potential exposure of employees to site contamination. Such exposures are most likely to include incidental ingestion and dermal exposure to contaminants in soil, and ingestion of contaminants in drinking water (assuming that ground water is used as potable water). It is assumed that employees would be on-site five days/week, fifty weeks/year, for twenty-five years.

SCENARIO 4: Future Use - Residential

Children and adults may occupy residences on the site. Separate scenarios are constructed for each receptor. In both cases, the relevant exposure pathways are indoor and outdoor ingestion of dust/soil, outdoor dermal

exposure to soil contaminants, outdoor inhalation of contaminants in dust, indoor inhalation of volatile compounds emanating from tap water, and ingestion exposures to contaminants in tap water. For children, parameter values for 0-6 year old children were selected, and exposure was assumed to take place over 6 years. For adults, exposure is assumed to occur for 30 years. For both receptors, the exposure frequency is assumed to be 350 days/year.

EXPOSURE EQUATIONS

SCENARIO 1: Current Use - Trespassing

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Coumpounds 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 350 days/year
ED = 12 years for children, 30 years for adults
BW = 43.2 kg (EPA, 1990b) children (6-18 years old), 70 kg adults
AT = 4,380 days for non-cancer risks in children, 10,950 days for adults
25,550 days for cancer risks for both children and adults

TRC

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day, which is typical for this age group.
EF = 350 days/year
ED = 12 years for children, 30 years for adults
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
- Lead:	
Children	0.5
Adults	0.3
- All others:	1.0

BW = 43.2 kg (EPA, 1990b) (children 6-18 years old), 70 kg (adults)
AT = 4,380 days for non-cancer risks in children and 10,950 days for adults
25,550 days for cancer risks for both children and adults

- Dermal Contact with Chemicals in Surface Water

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CW \times SA \times PC \times ET \times EF \times ED \times CF}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
SA = Skin Surface Area Available for Contact (cm^2)

PC = Chemical-specific Dermal Permeability Constant (cm/hr)
ET = Exposure Time (hours/day)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
CF = Volumetric Conversion Factor for Water (1 liter/1000 cm^3)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SA = 5,673 cm^2 for adults (EPA, 1990b), 7,505 cm^2 for 6-18 year old children, for partial body exposure
PC = 8.4 E-4 cm/hour, based upon penetration of water across skin (EPA, 1986)
ET = 4 hr/day; assumes clothing remains wet for this time period
EF = 150 days/year for children and 150 days/year for adults
ED = 30 years for adults, 12 years for children
BW = 70 kg for adults, 43.2 kg for children 6-18 years old
AT = 4,380 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

SCENARIO 2: Future Use - Construction

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil down to a depth of 12 feet (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Coumpounds 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05

	Low soil sorption	0.50
	Inorganics	Negligible
EF =	250 days/year	
ED =	1 year	
BW =	70 kg	
AT =	365 days for non-cancer risks	
	25,550 days for cancer risks	

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS =	Chemical Concentration in Soil (mg/kg)
IR =	Ingestion Rate (mg soil/day)
CF =	Conversion Factor (10^{-6} kg/mg)
EF =	Exposure Frequency (days/years)
ED =	Exposure Duration (years)
RAF =	Relative Absorption Factor (unitless)
BW =	Body Weight (kg)
AT =	Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR =	480 mg/day	
EF =	250 days/year	
ED =	1 year	
RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3
	Low soil sorption	1.0
	Inorganics	
	- Lead:	
	Adults	0.3
	- All others:	1.0
BW =	70 kg	
AT =	365 days for non-cancer risks	
	25,550 days for cancer risks	

- Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

TRC

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/hour)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 20 m^3/day for adults under moderate exertion
EF = 250 days/year
ED = 1 year
RAF_{ai} = 1.0
BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 3: Future Use - Commercial/Industrial

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

SCR = Skin Contact Rate (mg/day)
CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS =

Volatile Organic Coumpounds	0.50
Semivolatile Organic Compounds:	
PAHs	0.05
PCBs	0.05
Pesticides:	
High soil sorption	0.05
Low soil sorption	0.50
Inorganics	Negligible

TRC

EF = 250 days/year
ED = 25 years
BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 50 mg/day
EF = 250 days/year
ED = 25 years
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
- Lead:	
Adults	0.3
- All others:	1.0

BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

TRC

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 1.0 liter/day (EPA, 1990b)
EF = 250 days/year
ED = 25 years
BW = 70 kg(EPA, 1990b)
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

SCENARIO 4: Future Use - Residential

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Coumpounds: 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old

TRC

AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil and House Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day for adults; 200 mg/day for children ages 1-6 years
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
- Lead:	
Children	0.5
Adults	0.3
- All others:	1.0

BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Outdoor Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/hour)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged -- days)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)

Specific Parameter Values:

CD = Derived from fugitive dust generation (see below)
IR = 20 m^3/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF_{ai} = 1.0
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 2.0 liters/day for adult, 0.75 liters/day children (EPA, 1990b)
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old (EPA, 1990b)
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Inhalation of Airborne (Vapor Phase) Chemicals

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CA \times IR \times ET \times EF \times ED}{BW \times AT}$$

where:

CA = Contaminant Concentration in Air (mg/m^3) - derived from volatilization during showering (Andelman, 1985)
IR = Inhalation Rate (m^3/hour)
ET = Exposure Time (hours/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged days)

Specific Parameter Values:

IR = 0.6 m^3/hour light activity assumed (EPA, 1990b)
ET = 0.2 hours/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

EXPOSURE POINT MODELS

- Model Estimates of Fugitive Dust Generation

Emissions estimates were calculated for activities resulting in soil disturbance, such as heavy equipment operation and wind erosion which may occur over the site during the construction scenario.

The potentially significant components of fugitive dust at this site are:

1) wind erosion of dust from surfaces without vegetative cover, and
2) dust from loading/unloading of excavated soil.

Fugitive dust from wind erosion over exposed soil and from loading/unloading activities was calculated using (EPA, AP-42, 1988). Fugitive dust generation tables showing all model inputs, are presented in Table D-1. The data are summarized in Table D-2. The models are described below.

$$E = a \cdot I \cdot K \cdot C \cdot L \cdot V \cdot A \cdot T$$

TRC

where:

E = Emission rate (kg/day)

a = Fraction of total wind losses (wind erosion of soil) that remain suspended
I = Soil erodibility
K = Soil roughness factor
C = Climatic factor
L = Field length factor
V = Vegetative cover factor
A = Area of the site
T = Time conversion factor

Most of these values are specified in USEPA (1988) for worst-case treatments. The climatic factor is read from a map and multiplied by .01 as specified. The variables a and I are determined based on site soil characteristics. The following values were used:

a = 0.01
I = 134 tons $acre^{-1}$ yr^{-1}
K = 1 (worst-case for flat terrain)
C = 0.04
L = .7
V = 1 (no vegetative cover-worst case)
A = 20 acres (Scenario 2), 2 acres (Scenario 4)
T = 1 yr/365 days

The wind erosion emission rate is presented in Table D-2.

The second component is due to loading/unloading of soils due to excavation activities and can be accounted for by:

$$E = \frac{k \cdot (.0016) \cdot (U/2.2)^{1.3}}{(M/2)^{1.4}}$$

and

$$E_{ed} = V \cdot D \cdot E/T$$

where:

E = Emission factor due to loading/dumping (kg/Mg)
k = Particle size multiplier
U = Mean wind speed (m/s)
M = Soil moisture (%)
E_{ed} = Emission rate due to loading/dumping (kg/day)
V = Volume of soil excavated (m^3)
D = Density of soil (Mg/m^3)
T = Time conversion factor (days of excavation)

Using conservative assumptions and appropriate guidelines (EPA, AP-42, 1988):

k = .74
U = 4.74 m/s
M = 5%
V = 3,058 m^3
D = 1.5 Mg/m^3
T = 365 days

The emissions due to loading/dumping are presented in Table D-2.

Total fugitive emissions (from wind activity and loading/dumping) are also presented in Table D-1.

The dust concentration on site is calculated by:

$$Cs = \frac{E}{w \cdot W \cdot H} \cdot C_f$$

where:

Cs = Dust concentration on site (mg/m^3)
E = Total emission rate (kg/day)
w = Wind speed = 4.74 m/s
W = Width (entire site) = 609 m
H = Breathing height = 2 m
C_f = Factors for converting from days to seconds and from kg to mg

Total fugitive dust concentrations on site are shown in Table D-2.

The concentration of contaminant suspended in air is estimated by a simple ratio of contaminant concentration in soil to fugitive dust emissions:

$$A_C = CC \cdot C_S \cdot C_f$$

where:

A_C = Concentration of suspended contaminant (mg/m^3)
CC - Contaminant concentration in soil (mg/kg)
C_S = Dust concentration on site (mg/m^3)
C_f = Conversion factor (kg/mg)

TABLE D–1
DUST EMISSION RATE
TANK FARM 4

SITE LOCATION AND SCENARIO (#)	VEGETATIVE COVER FACTOR (V')	UNSHELTERED FIELD WIDTH FACTOR (L')	CLIMATIC FACTOR (C)	SURFACE ROUGHNESS FACTOR (K)	SOIL ERODIBILITY (I) (ton/acre/year)	PORTION AS SUSPENDED PARTICULATES (a)	EMISSION FACTOR (E) (ton/acre/yr)	CONVERSION FACTOR (kg/ton)	EMISSION FACTOR (E) (kg/acre/year)	TIME CONSTANT (year/day)	AREA (acres)	WIND EROSION EMISSION RATE (kg/day)
Tank Farm 4 (2)	1	0.7	0.04	1	134	0.010	3.8E–02	907.18	3.4E+01	0.0027	20	1.84E+00
Tank Farm 4 (4)	1	0.7	0.04	1	134	0.010	3.8E–02	907.18	3.4E+01	0.0027	2	1.84E–01

LOADING & DUMPING – DUST EMISSION RATE

SITE LOCATION AND SCENARIO (#)	MOISTURE CONTENT CONSTANT	MATERIAL MOISTURE CONTENT (M) (%)	WIND SPEED CONSTANT	MEAN WIND SPEED (U) (m/s)	PARTICLE SIZE CONSTANT	PARTICLE SIZE MULTIPLIER (k)	EMISSION FACTOR (E) (kg/Mg)	TIME (days)	DENSITY OF SOIL (D) (Mg/m3)	VOLUME OF SOIL EXCAVATED (m3)	LOADING AND DUMPING EMISSION RATE (kg/day)
Tank Farm 4 (2)	2	5	2.2	4.74	1.60E–03	0.74	8.8E–04	365	1.5	3058	1.12E–02

TABLE D-2

FUGITIVE DUST EMISSION
RATES AND AMBIENT CONCENTRATION ESTIMATES

DUST EMISSION RATE (kg/day)

	Scenario 2	Scenario 4
Wind Erosion	1.84E+00	1.84E-01
Loading/Unloading	1.12E-02	NA
Total Dust Emission Rate	1.85E+00	1.84E-01
Dust Concentration (mg/m^3)	3.72E-09	3.69E-10

NA = Not Applicable

TABLE D.1-1
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE ADULT CANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MAX (mg/kg/day)	ABS DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CF (kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																					
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5816.08	12200.00	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.20	4.70	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.60	8.50	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	15.01	32.80	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.25	0.52	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	795.36	1030.00	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.79	18.10	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.36	19.30	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.71	25.80	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20829.72	41100.00	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.43	40.00	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1804.31	2610.00	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	300.65	471.00	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.17	0.24	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.53	27.20	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	263.56	253.00	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.73	0.86	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.78	18.10	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	59.52	83.40	1.0E-06	500	0.00	350	12	30	43.2	70	4380	10950	25550
VOLATILES																					
1,1,1-Trichloroethane	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
1,1,2-Trichloroethane	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
1,1,2,2-Tetrachloroethane	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
1,2-Dichloropropane	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
1,3-Dichloropropane (cis)	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
1,3-Dichloropropane (trans)	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Benzene	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Bromodichloromethane	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Bromoform	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Carbon disulfide	9.7E-06	6.0E-06	1.4E-07	8.8E-08	1.7E-06	2.6E-06	2.4E-08	3.7E-08	0.018	0.025	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Carbon Tetrachloride	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Dibromochloromethane	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Styrene	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Tetrachloroethene	9.2E-06	5.7E-06	1.1E-06	6.9E-09	1.6E-06	2.4E-06	1.9E-09	2.9E-09	0.017	0.002	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550
Trichloroethene	9.7E-06	6.0E-06	3.3E-06	2.1E-06	1.7E-06	2.6E-06	5.7E-09	8.8E-09	0.018	0.006	1.0E-06	500	0.50	350	12	30	43.2	70	4380	10950	25550

TABLE D.1-1 (cont.)
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE ADULT CANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MAX (mg/kg/day)	ABS DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CF (kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,4-Dichlorobenzene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.80	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
2-Methylnaphthalene	4.4E-07	2.7E-07	1.1E-07	6.5E-08	7.6E-08	1.2E-07	1.8E-08	2.8E-08	0.80	0.19	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
2,4-Dinitrotoluene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
2,4,5-Trichlorophenol	2.7E-06	1.6E-06	1.4E-06	8.6E-07	4.6E-07	7.0E-07	2.4E-07	3.7E-07	4.80	2.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
2,4,6-Trichlorophenol	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
2,6-Dinitrotoluene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
3,3-Dichlorobenzidine	1.1E-06	6.6E-07	5.6E-07	3.4E-07	1.8E-07	2.8E-07	9.5E-08	1.5E-07	1.93	1.00	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Acenaphthene	3.7E-07	2.3E-07	4.2E-08	2.6E-08	6.3E-08	9.7E-08	7.2E-09	1.1E-08	0.66	0.08	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Anthracene	4.1E-07	2.5E-07	7.2E-08	4.5E-08	7.0E-08	1.1E-07	1.2E-08	1.9E-08	0.74	0.13	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Benzo(a)anthracene	2.4E-07	1.5E-07	9.9E-08	6.5E-08	4.2E-08	6.5E-08	1.5E-08	2.3E-08	0.44	0.16	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Benzo(a)pyrene	2.0E-07	1.2E-07	8.1E-08	3.8E-08	3.5E-08	5.3E-08	1.0E-08	1.6E-08	0.36	0.11	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Benzo(b)fluoranthene	3.9E-07	2.4E-07	4.6E-08	2.9E-08	6.6E-08	1.0E-07	8.2E-09	1.3E-08	0.69	0.09	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Bis(2-chloroethyl)ether	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Bis(2ethylhexyl)phthalate	5.5E-07	3.4E-07	3.8E-08	2.3E-08	9.4E-08	1.5E-07	6.5E-07	1.0E-06	0.99	6.80	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Butylbenzylphthalate	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Chrysene	2.4E-07	1.5E-07	5.3E-08	3.3E-08	4.2E-08	6.5E-08	9.1E-07	1.4E-06	0.44	9.80	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Di-n-butylphthalate	2.8E-07	1.7E-07	3.3E-08	2.1E-08	4.8E-08	7.4E-08	5.7E-09	8.8E-09	0.51	0.06	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Fluoranthene	3.3E-07	2.0E-07	1.4E-07	8.9E-08	5.6E-08	8.7E-08	2.5E-08	3.8E-08	0.59	0.26	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Fluorene	4.4E-07	2.7E-07	1.1E-07	6.5E-08	7.6E-08	1.2E-07	1.8E-08	2.8E-08	0.80	0.19	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Hexachlorobenzene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Hexachlorobutadiene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Hexachloroethane	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Isophrone	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Naphthalene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Nitrobenzene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
N-nitroso-di-n-propylamine	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
N-nitrosodiphenylamine	5.4E-07	3.3E-07	2.8E-07	1.7E-07	9.2E-08	1.4E-07	4.8E-08	7.3E-08	0.97	0.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Pentachlorophenol	2.7E-06	1.6E-06	1.4E-06	8.6E-07	4.6E-07	7.0E-07	2.4E-07	3.7E-07	4.80	2.50	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Phenanthrene	2.8E-07	1.7E-07	4.1E-08	2.5E-08	4.7E-08	7.3E-08	6.9E-07	1.1E-06	0.50	7.30	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Phenol	2.8E-07	1.7E-07	8.3E-08	5.1E-08	4.7E-08	7.3E-08	1.4E-08	2.2E-08	0.50	0.15	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Pyrene	4.2E-07	2.6E-07	3.3E-08	2.1E-08	7.2E-08	1.1E-07	5.7E-07	8.8E-07	0.75	6.00	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
PESTICIDES																					
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
4,4'-DDE	2.5E-09	1.5E-09	2.5E-09	1.5E-09	4.3E-10	6.6E-10	4.3E-10	6.8E-10	0.0045	0.0045	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Dieldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550
Toxaphene	1.2E-08	7.2E-10	1.2E-08	7.2E-10	2.0E-10	3.1E-10	2.0E-10	3.1E-10	0.0021	0.0021	1.0E-06	500	0.05	350	12	30	43.2	70	4380	10950	25550

TABLE D.1-2
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	INTAKE CHLD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHLD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHLD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHLD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CONVERSION FACTOR (kg/mg)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unitless)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																						
Aluminum	1.3E-02	9.0E-03	2.7E-02	1.7E-02	2.2E-03	3.4E-03	4.6E-03	7.2E-03	5816.05	12200.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Antimony	9.3E-06	6.6E-06	1.0E-05	6.4E-06	1.6E-06	2.5E-06	1.8E-06	2.8E-06	4.20	4.70	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Arsenic	1.0E-05	6.3E-06	1.9E-05	1.2E-05	1.8E-06	2.7E-06	3.2E-06	5.0E-06	4.60	8.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Barium	3.3E-05	2.1E-05	7.3E-05	4.6E-05	5.7E-06	8.8E-06	1.2E-05	1.9E-05	15.01	32.80	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Beryllium	5.6E-07	3.4E-07	1.2E-06	7.1E-07	9.4E-08	1.4E-07	2.0E-07	3.1E-07	0.25	0.52	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Calcium	1.6E-03	1.1E-03	2.3E-03	1.4E-03	3.0E-04	4.7E-04	3.9E-04	6.0E-04	798.36	1030.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Chromium	1.5E-05	9.3E-06	3.4E-05	2.1E-05	2.6E-06	4.0E-06	5.7E-06	8.9E-06	6.79	15.10	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Cobalt	2.1E-06	1.3E-06	4.3E-06	2.6E-06	3.6E-06	5.5E-06	7.3E-06	1.1E-05	9.36	19.30	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Copper	1.5E-05	5.6E-06	5.7E-05	3.5E-05	2.6E-06	2.4E-06	9.8E-06	1.5E-05	13.71	26.80	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Iron	4.6E-02	2.9E-02	9.1E-02	5.6E-02	8.0E-03	1.2E-02	1.6E-02	2.4E-02	20929.72	41100.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Lead	2.0E-05	7.6E-06	4.4E-05	1.6E-05	3.5E-06	3.2E-06	7.8E-06	7.0E-06	18.43	40.00	100	100	1.0E-06	350	12	30	a	43.2	70	4380	10950	25550
Magnesium	4.0E-03	2.6E-03	6.6E-03	3.6E-03	6.9E-04	1.1E-03	9.9E-04	1.5E-03	1804.31	261.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Manganese	6.7E-04	4.1E-04	1.0E-03	6.6E-04	1.1E-04	1.8E-04	1.8E-04	2.8E-04	300.65	471.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Mercury	3.7E-07	2.3E-07	5.3E-07	3.3E-07	6.3E-08	9.8E-08	9.1E-08	1.4E-07	0.17	0.24	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Nickel	3.0E-05	1.9E-05	6.0E-05	3.7E-05	5.1E-06	7.9E-06	1.0E-05	1.6E-05	13.53	27.20	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Potassium	6.3E-04	3.9E-04	5.6E-04	3.5E-04	1.1E-04	1.7E-04	9.6E-05	1.5E-04	283.56	253.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Thallium	1.6E-06	1.0E-06	2.0E-06	1.2E-06	2.8E-07	4.3E-07	3.3E-07	5.2E-07	0.73	0.88	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Vanadium	2.2E-05	1.3E-05	4.0E-05	2.5E-05	3.7E-06	5.7E-06	6.9E-06	1.1E-05	9.78	18.10	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Zinc	1.3E-04	8.2E-05	1.8E-04	1.1E-04	2.3E-05	3.5E-05	3.2E-05	4.9E-05	59.52	83.40	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
VOLATILES																						
1,1,1-Trichloroethane	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
1,1,2-Trichloroethane	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
1,1,2,2-Tetrachloroethane	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
1,2-Dichloropropane	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
1,3-Dichloropropene (cis)	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
1,3-Dichloropropene (trans)	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Benzene	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Bromodichloromethane	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Bromoform	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Carbon disulfide	3.9E-08	2.4E-08	5.6E-08	3.4E-08	6.7E-09	1.0E-08	9.5E-09	1.5E-08	0.018	0.025	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Carbon Tetrachloride	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Dibromochloromethane	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Styrene	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Tetrachloroethene	3.7E-08	2.3E-08	4.4E-08	2.7E-08	6.3E-09	9.7E-09	7.6E-10	1.2E-09	0.017	0.002	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Trichloroethene	3.9E-08	2.4E-08	1.3E-08	8.2E-09	6.7E-09	1.0E-08	2.3E-09	3.5E-09	0.018	0.008	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550

TABLE D.1-2 (cont.)
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	INTAKE CHLD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHLD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHLD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHLD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CONVERSION FACTOR (kg/mg)	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unitless)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NONCANCER (days)	AT ADULT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																						
1,4-Dichlorobenzene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.87	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
2-Methylnaphthalene	1.8E-06	1.1E-06	4.2E-07	2.6E-07	3.0E-07	4.7E-07	7.2E-08	1.1E-07	0.80	0.19	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
2,4-Dinitrotoluene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.87	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
2,4,5-Trichlorophenol	1.1E-05	6.6E-06	5.6E-06	3.4E-06	1.8E-06	2.8E-06	9.5E-07	1.5E-06	4.80	2.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
2,4,6-Trichlorophenol	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
2,6-Dinitrotoluene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
3,3-Dichlorobenzidine	4.3E-06	2.6E-06	2.2E-06	1.4E-06	7.3E-07	1.1E-06	3.8E-07	5.9E-07	1.83	1.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Acenaphthene	1.5E-06	9.1E-07	1.7E-07	1.0E-07	2.5E-07	3.9E-07	2.9E-08	4.5E-08	0.66	0.09	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Anthracene	1.6E-06	1.0E-06	2.9E-07	1.8E-07	2.6E-07	4.3E-07	4.9E-08	7.6E-08	0.74	0.13	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Benzo(a)anthracene	9.8E-07	6.0E-07	3.6E-07	2.2E-07	1.7E-07	2.6E-07	6.1E-08	9.4E-08	0.44	0.16	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Benzo(a)pyrene	8.1E-07	5.0E-07	2.4E-07	1.5E-07	1.4E-07	2.1E-07	4.2E-08	6.5E-08	0.36	0.11	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Benzo(b)fluoranthene	1.5E-06	9.4E-07	1.9E-07	1.2E-07	2.6E-07	4.0E-07	3.3E-08	5.0E-08	0.69	0.09	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Bis(2-chloroethyl)ether	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Bis(2ethylhexyl)phthalate	2.2E-06	1.4E-06	1.6E-06	9.3E-08	3.8E-07	5.8E-07	2.6E-08	4.0E-08	0.99	6.80	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Butylbenzylphthalate	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Chrysene	9.6E-07	6.0E-07	2.1E-06	1.3E-06	1.7E-07	2.6E-07	3.7E-06	5.6E-06	0.44	9.80	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Di-n-butylphthalate	1.1E-06	6.9E-07	1.3E-07	8.2E-08	1.9E-07	3.0E-07	2.3E-08	3.5E-08	0.51	0.06	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Fluoranthene	1.3E-06	8.1E-07	5.8E-07	3.6E-07	2.3E-07	3.5E-07	9.9E-08	1.5E-07	0.59	0.28	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Fluorene	1.8E-06	1.1E-06	4.2E-07	2.6E-07	3.0E-07	4.7E-07	7.2E-08	1.1E-07	0.80	0.19	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Hexachlorobenzene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Hexachlorobutadiene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Hexachloroethane	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Isophrone	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Naphthalene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Nitrobenzene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
N-nitroso-di-n-propylamir	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
N-nitrosodiphenylamine	2.1E-06	1.3E-06	1.1E-06	6.8E-07	3.7E-07	5.7E-07	1.9E-07	2.9E-07	0.97	0.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Pentachlorophenol	1.1E-05	6.6E-06	5.6E-06	3.4E-06	1.8E-06	2.8E-06	9.5E-07	1.5E-06	4.80	2.50	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Phenanthrene	1.1E-06	6.8E-07	1.6E-06	1.0E-06	1.9E-07	2.9E-07	2.8E-06	4.3E-06	0.50	7.30	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Phenol	1.1E-06	6.8E-07	3.3E-07	2.1E-07	1.9E-07	2.9E-07	5.7E-08	8.8E-08	0.50	0.15	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Pyrene	1.7E-06	1.0E-06	1.3E-06	8.2E-08	2.8E-07	4.4E-07	2.3E-08	3.5E-08	0.75	8.00	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
PESTICIDES																						
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
4,4'-DDE	1.0E-06	6.2E-07	1.0E-06	6.2E-07	1.7E-09	2.6E-09	1.7E-09	2.6E-09	0.0046	0.0046	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Dieldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550
Toxaphene	4.7E-09	2.9E-09	4.7E-09	2.9E-09	8.0E-10	1.2E-09	8.0E-10	1.2E-09	0.0021	0.0021	100	100	1.0E-06	350	12	30	1.0	43.2	70	4380	10950	25550

TABLE D.1-3
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN WATER
TANK FARM FOUR

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX. (mg/kg/day)	ABS DOSE ADULT NONCANCER MAX. (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE ADULT CANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MAX. (mg/kg/day)	ABS DOSE ADULT CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	SA CHILD (cm2)	SA ADULT (cm2)	PERMBLTY CONSTANT (cm/hr)	ET (hrs/d)	EF (d/yr)	ED CHILD (yrs)	ED ADULT (yrs)	CONVRS FACTOR (L/cm3)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																							
Aluminum	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.114	0.370	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Arsenic	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.001	0.002	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Barium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.013	0.012	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Beryllium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Cadmium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.002	0.003	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Calcium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	21.3	30.0	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Chromium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.001	0.004	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Cobalt	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Copper	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Iron	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Lead	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.695	18.000	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Magnesium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.002	0.004	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Manganese	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.61	18.10	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.171	1.930	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Nickel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Potassium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Selenium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.16	11.00	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Silver	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.002	0.003	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Sodium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Thallium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	10.06	17.90	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Vanadium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.001	0.001	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
Zinc	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.005	0.006	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
									0.048	1.190	7505	5673	0.0E+00	4	350	12	30	0.001	43.2	70	4380	10950	25550
VOLATILES																							
1,1,1-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
1,3-Dichloropropene (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
1,3-Dichloropropene (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Carbon disulfide	1.92E-06	8.95E-07	1.46E-06	6.79E-06	3.29E-07	3.84E-07	2.49E-06	2.91E-06	0.0034	0.0260	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Carbon Tetrachloride	1.44E-06	6.73E-07	1.09E-06	7.83E-07	2.47E-07	2.88E-07	2.88E-07	3.36E-07	0.0026	0.0030	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Tetrachloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550

TABLE D.1 - 3 (cont.)
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN WATER
TANK FARM FOUR

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX. (mg/kg/day)	ABS DOSE ADULT NONCANCER MAX. (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE ADULT CANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MAX. (mg/kg/day)	ABS DOSE ADULT CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	SA CHILD (cm2)	SA ADULT (cm2)	PERMBLTY CONSTANT (cm/hr)	ET (hrs/d)	EF (d/yr)	ED CHILD (yrs)	ED ADULT (yrs)	CONVRS FACTOR (L/cm3)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																							
1,4-Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
2,4-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
2,4,5-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
2,4,6-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
2,6-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
3,3-Dichlorobenzidine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Acenaphthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Benzo(ghi)perylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Bis(2-chloroethyl)ether	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Bis(2ethylhexyl)phthalate	1.47E-06	6.86E-07	1.12E-06	5.22E-07	2.52E-07	2.94E-07	1.92E-07	2.24E-07	0.0026	0.0020	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Chrysene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Di-n-butylphthalate	2.24E-06	1.05E-06	5.60E-07	2.61E-07	3.84E-07	4.48E-07	9.60E-08	1.12E-07	0.0040	0.0010	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Fluorene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Hexachlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Hexachlorobutadiene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Hexachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Isophrone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Nitrobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
N-nitroso-di-n-propylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
N-nitrosodiphenylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Pentachlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Phenol	2.93E-06	1.32E-06	2.24E-06	1.04E-06	4.88E-07	5.66E-07	3.84E-07	4.48E-07	0.0061	0.0040	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
PESTICIDES																							
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Aldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Dieldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Heptachlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550
Toxaphene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	7505	5673	8.4E-04	4	350	12	30	0.001	43.2	70	4380	10950	25550

TABLE D.1-4
SCENARIO 1
INGESTION OF CHEMICALS IN SURFACE WATER
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	CR (liters/hour)	ET (hours/day)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS													
Aluminum	5.43E-05	1.76E-04	9.31E-06	3.02E-05	0.11	0.37	0.050	1.00	150	12	43.2	4380	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Arsenic	6.73E-07	9.51E-07	1.15E-07	1.63E-07	0.0014	0.0020	0.050	1.00	150	12	43.2	4380	25550
Barium	5.97E-06	5.90E-06	1.02E-06	1.01E-06	0.013	0.012	0.050	1.00	150	12	43.2	4380	25550
Beryllium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Cadmium	9.13E-07	1.57E-06	1.57E-07	2.69E-07	0.0019	0.0033	0.050	1.00	150	12	43.2	4380	25550
Calcium	1.02E-02	1.43E-02	1.74E-03	2.45E-03	21.35	30.00	0.050	1.00	150	12	43.2	4380	25550
Chromium	5.99E-07	1.90E-06	1.03E-07	3.26E-07	0.0013	0.0040	0.050	1.00	150	12	43.2	4380	25550
Cobalt	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Copper	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Iron	8.06E-04	8.56E-03	1.38E-04	1.47E-03	1.69	18.00	0.050	1.00	150	12	43.2	4380	25550
Lead	1.08E-06	1.81E-06	1.85E-07	3.10E-07	0.0023	0.0038	0.050	1.00	150	12	43.2	4380	25550
Magnesium	3.62E-03	8.61E-03	6.20E-04	1.48E-03	7.61	18.10	0.050	1.00	150	12	43.2	4380	25550
Manganese	8.12E-05	9.18E-04	1.39E-05	1.57E-04	0.17	1.93	0.050	1.00	150	12	43.2	4380	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Nickel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Potassium	1.52E-03	5.23E-03	2.60E-04	8.97E-04	3.19	11.00	0.050	1.00	150	12	43.2	4380	25550
Selenium	7.24E-07	1.47E-06	1.24E-07	2.53E-07	0.0015	0.0031	0.050	1.00	150	12	43.2	4380	25550
Silver	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Sodium	7.64E-03	8.51E-03	1.31E-03	1.46E-03	16.06	17.90	0.050	1.00	150	12	43.2	4380	25550
Thallium	5.99E-07	4.76E-07	1.03E-07	8.15E-08	0.0013	0.0010	0.050	1.00	150	12	43.2	4380	25550
Vanadium	2.41E-06	2.38E-06	4.13E-07	4.08E-07	0.0051	0.0050	0.050	1.00	150	12	43.2	4380	25550
Zinc	2.17E-05	5.66E-04	3.72E-06	9.70E-05	0.046	1.19	0.050	1.00	150	12	43.2	4380	25550
VOLATILES													
1,1,1-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
1,3-Dichloropropene (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
1,3-Dichloropropene (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Carbon disulfide	1.63E-06	1.24E-05	2.80E-07	2.12E-06	0.0034	0.0260	0.050	1.00	150	12	43.2	4380	25550
Carbon Tetrachloride	1.23E-06	1.43E-06	2.10E-07	2.45E-07	0.0026	0.0030	0.050	1.00	150	12	43.2	4380	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Tetrachloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550

TABLE D.1-4 (cont.)
SCENARIO 1
INGESTION OF CHEMICALS IN SURFACE WATER
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	CR (liters/hour)	ET (hours/day)	EF (days/year)	ED (years)	BW (kg)	AT NONCAN (days)	AT CANCER (days)
SEMIVOLATILES													
1,4-Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
2,4-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
2,4,5-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
2,4,6-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
2,6-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
3,3-Dichlorobenzidine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Acenaphthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Benzo(ghi)perylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Bis(2-chloroethyl)ether	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Bis(2ethylhexyl)phthalate	1.25E-06	9.51E-07	2.14E-07	1.63E-07	0.0026	0.0020	0.050	1.00	150	12	43.2	4380	25550
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Chrysene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Di-n-butylphthalate	1.90E-06	4.76E-07	3.27E-07	8.15E-08	0.0040	0.0010	0.050	1.00	150	12	43.2	4380	25550
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Fluorene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Hexachlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Hexachlorobutadiene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Hexachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Isophrone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Nitrobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
N-nitroso-di-n-propylamin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
N-nitrosodiphenylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Pentachlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Phenol	2.40E-06	1.90E-06	4.12E-07	3.26E-07	0.0051	0.0040	0.050	1.00	150	12	43.2	4380	25550
Pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
PESTICIDES													
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Aldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Dieldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Heptachlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550
Toxaphene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.050	1.00	150	12	43.2	4380	25550

TABLE D.1--5
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	TOTAL CANCER RISK	
														1.2E-06	1.6E-06	CHILD MEAN
														1.6E-06	2.8E-06	ADULT MEAN
														6.2E-07	5.4E-06	CHILD MAX
														9.6E-07	8.2E-06	ADULT MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																
VOLATILES																
1,1,1-Trichloroethane	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	NA	D		IRIS	NA	NA	NA	NA			
1,1,2-Trichloroethane	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	5.70E-02	C	Hepatocellular c	Gavage/IRIS	9.5E-10	1.5E-09	3.3E-10	5.0E-10			
1,1,2,2-Tetrachloroethane	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	2.00E-01	C	Hepatocellular c	Gavage/IRIS	3.3E-09	5.2E-09	1.1E-09	1.8E-09			
1,2-Dichloropropane	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	6.80E-02	B2	Liver	Gavage/HEAS	1.1E-09	1.8E-09	3.9E-10	6.0E-10			
1,3-Dichloropropene (cis)	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	1.80E-01	B2	Forestomach, lin	Gavage/HEAS	3.0E-09	4.6E-09	1.0E-09	1.6E-09			
1,3-Dichloropropene (trans)	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	1.80E-01	B2	Forestomach, lin	Gavage/HEAS	3.0E-09	4.6E-09	1.0E-09	1.6E-09			
Benzene	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	2.90E-02	A	Leukemia	Occupational/I	4.8E-10	7.5E-10	1.7E-10	2.6E-10			
Bromodichloromethane	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	1.30E-01	B2	Hepatocellular c	Gavage/IRIS	2.2E-09	3.4E-09	7.4E-10	1.1E-09			
Bromoform	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	7.90E-03	B2	Neoplastic lesio	Gavage/IRIS	1.3E-10	2.0E-10	4.5E-11	7.0E-11			
Carbon disulfide	1.7E-08	2.6E-08	2.4E-08	3.7E-08	No	NA			NA/IRIS,HEAS	NA	NA	NA	NA			
Carbon Tetrachloride	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	1.30E-01	B2	Hepatocellular c	Oral/IRIS	2.2E-09	3.4E-09	7.4E-10	1.1E-09			
Dibromochloromethane	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	8.40E-02	C	Hepatocellular a	Gavage/IRIS	1.4E-09	2.2E-09	4.8E-10	7.4E-10			
Styrene	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	3.00E-02	B2	Lung and brone	Gavage/HEAS	5.0E-10	7.7E-10	1.7E-10	2.6E-10			
Tetrachloroethene	1.6E-08	2.4E-08	1.9E-08	2.9E-08	No	0.05	B2	Liver	Gavage/HEAS	8.0E-10	1.2E-09	9.7E-11	1.5E-10			
Trichloroethene	1.7E-08	2.6E-08	5.7E-08	8.8E-08	No	1.10E-02	B2	Liver	Gavage/HEAS	1.8E-10	2.8E-10	6.3E-11	9.7E-11			
SEMIVOLATILES																
1,4-Dichlorobenzene	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	2.40E-02	C	Liver	Gavage/HEAS	2.2E-09	3.4E-09	1.1E-09	1.8E-09			
2-Methylnaphthalene	7.6E-08	1.2E-07	1.9E-08	2.8E-08	No	NA			NA/IRIS,HEAS	NA	NA	NA	NA			
2,4-Dinitrotoluene	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	6.3E-08	9.7E-08	3.2E-08	5.0E-08			
2,4,5-Trichlorophenol	4.6E-07	7.0E-07	2.4E-07	3.7E-07	No	NA			NA/IRIS,HEAS	NA	NA	NA	NA			
2,4,6-Trichlorophenol	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	1.0E-09	1.6E-09	5.2E-10	8.1E-10			
2,6-Dinitrotoluene	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	6.80E-01	B2	Hepatocellular c	Diet/IRIS	6.3E-08	9.7E-08	3.2E-08	5.0E-08			
3,3-Dichlorobenzidine	1.8E-07	2.8E-07	9.5E-08	1.5E-07	No	4.50E-01	B2	Mammary aden	Water/IRIS	8.3E-08	1.3E-07	4.3E-08	6.6E-08			
Acenaphthene	8.3E-08	9.7E-08	7.2E-08	1.1E-08	No	NA			NA/IRIS,HEAS	NA	NA	NA	NA			
Anthracene	7.0E-08	1.1E-07	1.2E-08	1.8E-08	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Benzo(a)anthracene	4.2E-08	6.5E-08	1.5E-08	2.3E-08	No	NA	B2	Liver, lung, skin	IRIS	NA	NA	NA	NA			
Benzo(a)pyrene	3.5E-08	5.3E-08	1.0E-08	1.6E-08	No	NA	B2	Lung, stomach	IRIS	NA	NA	NA	NA			
Benzo(b)fluoranthene	6.6E-08	1.0E-07	8.2E-09	1.3E-08	No	NA	B2	Lung, thorax, sk	IRIS	NA	NA	NA	NA			
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, thorax, sk	IRIS	NA	NA	NA	NA			
Bis(2-chloroethyl)ether	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	1.10E+00	B2	Liver	Gavage/IRIS	1.0E-07	1.6E-07	5.2E-08	8.1E-08			
Bis(2ethylhexyl)phthalate	9.4E-08	1.5E-07	6.5E-07	1.0E-06	No	1.40E-02	B2	Liver	IRIS	1.3E-09	2.0E-09	9.1E-09	1.4E-08			
Butylbenzylphthalate	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA			
Chrysene	4.2E-08	6.5E-08	8.1E-07	1.4E-08	No	NA	B2	Malignant lymph	IRIS	NA	NA	NA	NA			
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, mammary	IRIS	NA	NA	NA	NA			
Di-n-butylphthalate	4.6E-08	7.4E-08	5.7E-09	8.8E-09	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Fluoranthene	5.6E-08	8.7E-08	2.8E-08	3.8E-08	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Fluorene	7.6E-08	1.2E-07	1.9E-08	2.8E-08	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Hexachlorobenzene	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	1.60E+00	B2	Hepatocellular c	Diet/IRIS	1.5E-07	2.3E-07	7.6E-08	1.2E-07			
Hexachlorobutadiene	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	7.80E-02	C	Renal tubular ac	Diet/IRIS	7.2E-09	1.1E-08	3.7E-09	5.7E-09			
Hexachloroethane	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	1.40E-02	C	Hepatocellular c	Gavage/IRIS	1.3E-09	2.0E-09	6.7E-10	1.0E-09			
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, skin	IRIS	NA	NA	NA	NA			
Isophrone	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	4.10E-03	C	Preputial gland	Gavage/IRIS	3.8E-10	5.8E-10	2.0E-10	3.0E-10			
Naphthalene	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Nitrobenzene	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
N-nitroso-di-n-propylamine	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	7.00E+00	B2	Hepatocellular c	Water/IRIS	6.4E-07	9.8E-07	3.3E-07	5.1E-07			
N-nitrosodiphenylamine	9.2E-08	1.4E-07	4.8E-08	7.3E-08	No	4.90E-03	B2		Diet/IRIS	4.5E-10	7.0E-10	2.3E-10	3.6E-10			
Pentachlorophenol	4.6E-07	7.0E-07	2.4E-07	3.7E-07	No	1.20E-01	B2	Hepatocellular a	Oral/IRIS	5.5E-08	8.4E-08	2.8E-08	4.4E-08			
Phenanthrene	4.7E-08	7.3E-08	5.9E-07	1.1E-08	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Phenol	4.7E-08	7.3E-08	1.4E-08	2.2E-08	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
Pyrene	7.2E-08	1.1E-07	5.7E-07	8.8E-07	No	NA	D		NA/IRIS,HEAS	NA	NA	NA	NA			
PESTICIDES																
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	NA	NA			
4,4'-DDE	4.3E-10	6.6E-10	4.3E-10	6.6E-10	No	3.40E-01	B2	Hepatocellular c	Diet/IRIS	1.5E-10	2.2E-10	1.5E-10	2.2E-10			
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	NA	NA			
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA			
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular c	Diet/IRIS	NA	NA	NA	NA			
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA			
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular c	Diet/IRIS	NA	NA	NA	NA			
Toxaphene	2.0E-10	3.1E-10	2.0E-10	3.1E-10	No	1.10E+00	B2	Hepatocellular c	Diet/IRIS	2.2E-10	3.4E-10	2.2E-10	3.4E-10			

TABLE D.1-6
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK
														1.7E-05 CHILD MEAN
														2.6E-05 ADULT MEAN
EXPOSURE PATHWAY; INGESTION OF CHEMICALS IN SOIL														5.3E-05 CHILD MAX
														8.1E-05 ADULT MAX
INORGANICS														
Aluminum	2.2E-03	3.4E-03	4.8E-03	7.2E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Antimony	1.6E-06	2.5E-06	1.8E-06	2.8E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Arsenic	1.8E-06	2.7E-06	3.2E-06	5.0E-06	No	1.75E+00	A	Skin	IRIS	3.1E-06	4.7E-06	5.7E-06	8.7E-06	
Barium	5.7E-06	8.8E-06	1.2E-05	1.9E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Beryllium	9.4E-08	1.4E-07	2.0E-07	3.1E-07	No	4.30E+00	B2	Gross tumors all sites combined	Water/IRIS	4.0E-07	6.2E-07	8.5E-07	1.3E-06	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Calcium	3.0E-04	4.7E-04	3.9E-04	6.0E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Chromium	2.6E-06	4.0E-06	5.7E-06	8.9E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Cobalt	3.6E-06	5.5E-06	7.3E-06	1.1E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Copper	2.6E-06	2.4E-06	9.8E-06	1.5E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Iron	8.0E-03	1.2E-02	1.6E-02	2.4E-02	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Lead	3.5E-06	3.2E-06	7.6E-06	7.0E-06	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	NA	NA	
Magnesium	6.9E-04	1.1E-03	9.9E-04	1.5E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Manganese	1.1E-04	1.8E-04	1.8E-04	2.8E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Mercury	6.3E-08	9.8E-08	9.1E-08	1.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Nickel	5.1E-06	7.9E-06	1.0E-05	1.6E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Potassium	1.1E-04	1.7E-04	9.6E-05	1.5E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Thallium	2.8E-07	4.3E-07	3.3E-07	5.2E-07	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Vanadium	3.7E-06	5.7E-06	6.9E-06	1.1E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Zinc	2.3E-05	3.5E-05	3.2E-05	4.9E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
VOLATILES														
1,1,1-Trichloroethane	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	NA	D		IRIS	NA	NA	NA	NA	
1,1,2-Trichloroethane	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.8E-10	5.9E-10	1.3E-10	2.0E-10	
1,1,2,2-Tetrachloroethane	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.3E-09	2.1E-09	4.6E-10	7.0E-10	
1,2-Dichloropropane	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	6.80E-02	B2	Liver	Gavage/HEAST	4.5E-10	7.0E-10	1.6E-10	2.4E-10	
1,3-Dichloropropane (cis)	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	1.2E-09	1.9E-09	4.1E-10	6.3E-10	
1,3-Dichloropropane (trans)	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	1.2E-09	1.9E-09	4.1E-10	6.3E-10	
Benzene	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.9E-10	3.0E-10	6.6E-11	1.0E-10	
Bromodichloromethane	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	8.7E-10	1.3E-09	3.0E-10	4.6E-10	
Bromoform	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	5.3E-11	8.1E-11	1.8E-11	2.8E-11	
Carbon disulfide	6.7E-09	1.0E-08	9.5E-09	1.5E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Carbon Tetrachloride	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	8.7E-10	1.3E-09	3.0E-10	4.6E-10	
Dibromochloromethane	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	5.6E-10	8.7E-10	1.9E-10	3.0E-10	
Styrene	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	2.0E-10	3.1E-10	6.8E-11	1.1E-10	
Tetrachloroethene	6.3E-09	9.7E-09	7.6E-10	1.2E-09	No	0.05	B2	Liver	Gavage/HEAST	3.2E-10	4.9E-10	3.9E-11	6.0E-11	
Trichloroethene	6.7E-09	1.0E-08	2.3E-09	3.5E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	7.4E-11	1.1E-10	2.5E-11	3.9E-11	

TABLE D.1-6 (cont.)
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL													
SEMIVOLATILES													
1,4-Dichlorobenzene	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	2.40E-02	C	Liver	Gavage/HEAST	8.8E-09	1.4E-08	4.6E-09	7.0E-09
2-Methylnaphthalene	3.0E-07	4.7E-07	7.2E-08	1.1E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	2.5E-07	3.9E-07	1.3E-07	2.0E-07
2,4,5-Trichlorophenol	1.8E-08	2.8E-08	9.5E-07	1.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4,6-Trichlorophenol	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	1.10E-02	B2	Leukemia	Diet/IRIS	4.1E-09	6.2E-09	2.1E-09	3.2E-09
2,6-Dinitrotoluene	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	2.5E-07	3.9E-07	1.3E-07	2.0E-07
3,3-Dichlorobenzidine	7.3E-07	1.1E-06	3.8E-07	5.9E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	3.3E-07	5.1E-07	1.7E-07	2.6E-07
Acenaphthene	2.5E-07	3.9E-07	2.9E-08	4.5E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
Anthracene	2.8E-07	4.3E-07	4.9E-08	7.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(a)anthracene	1.7E-07	2.6E-07	6.1E-08	9.4E-08	No	1.15E+01	B2	Liver, lung, skin	IRIS	1.9E-06	3.0E-06	7.0E-07	1.1E-06
Benzo(a)pyrene	1.4E-07	2.1E-07	4.2E-08	6.5E-08	No	1.15E+01	B2	Lung, stomach	IRIS	1.6E-06	2.5E-06	4.8E-07	7.4E-07
Benzo(b)fluoranthene	2.6E-07	4.0E-07	3.3E-08	5.0E-08	No	1.15E+01	B2	Lung, thorax, skin	IRIS	3.0E-06	4.7E-06	3.8E-07	5.8E-07
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA
Bis(2-chloroethyl)ether	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	1.10E+00	B2	Liver	Gavage/IRIS	4.1E-07	6.2E-07	2.1E-07	3.2E-07
Bis(2ethylhexyl)phthalate	3.8E-07	5.8E-07	2.6E-08	4.0E-08	No	1.40E-02	B2	Liver	IRIS	5.3E-09	8.1E-09	3.6E-08	5.6E-08
Butylbenzylphthalate	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA
Chrysene	1.7E-07	2.6E-07	3.7E-08	5.6E-08	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.9E-06	3.0E-06	4.2E-05	6.5E-05
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	NA	NA	NA	NA
Di-n-butylphthalate	1.9E-07	3.0E-07	2.3E-08	3.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluoranthene	2.3E-07	3.5E-07	9.6E-08	1.5E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluorene	3.0E-07	4.7E-07	7.2E-08	1.1E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Hexachlorobenzene	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	5.9E-07	9.1E-07	3.0E-07	4.7E-07
Hexachlorobutadiene	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	2.9E-08	4.4E-08	1.5E-08	2.3E-08
Hexachloroethane	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	5.2E-09	8.0E-09	2.7E-09	4.1E-09
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	NA	NA	NA	NA
Isophrone	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	1.5E-09	2.3E-09	7.8E-10	1.2E-09
Naphthalene	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Nitrobenzene	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitroso-di-n-propylamine	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	2.6E-06	4.0E-06	1.3E-06	2.1E-06
N-nitrosodiphenylamine	3.7E-07	5.7E-07	1.9E-07	2.9E-07	No	4.90E-03	B2		Diet/IRIS	1.8E-09	2.8E-09	9.3E-10	1.4E-09
Pentachlorophenol	1.8E-08	2.8E-08	9.5E-07	1.5E-06	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochromocytoma	Oral/IRIS	2.2E-07	3.4E-07	1.1E-07	1.8E-07
Phenanthrene	1.9E-07	2.9E-07	2.8E-08	4.3E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Phenol	1.9E-07	2.9E-07	5.7E-08	8.8E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Pyrene	2.9E-07	4.4E-07	2.3E-08	3.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	NA	NA
4,4'-DDE	1.7E-09	2.6E-09	1.7E-09	2.6E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	5.8E-10	9.0E-10	5.8E-10	9.0E-10
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Dieldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Toxaphene	8.0E-10	1.2E-09	8.0E-10	1.2E-09	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	8.8E-10	1.4E-09	8.8E-10	1.4E-09

TABLE D.1-7
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	
														3.6E-06	CHILD MEAN
														4.2E-06	ADULT MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN WATER														4.0E-06	CHILD MAX
														4.7E-06	ADULT MAX
VOLATILES															
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver	Gavage/HEAST	NA	NA	NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	NA	NA	NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA		
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	NA	NA	NA	NA		
Carbon disulfide	3.3E-07	3.8E-07	2.5E-06	2.9E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Carbon Tetrachloride	2.5E-07	2.9E-07	2.9E-07	3.4E-07	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	3.2E-08	3.7E-08	3.7E-08	4.4E-08		
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	NA	NA	NA	NA		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA	NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	0.05	B2	Liver	Gavage/HEAST	NA	NA	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA	NA	NA		
SEMIVOLATILES															
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/HEAST	NA	NA	NA	NA		
2-Methylnaphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
2,4-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	NA	NA	NA	NA		
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E-02	B2	Leukemia	Diet/IRIS	NA	NA	NA	NA		
2,6-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	NA	NA	NA	NA		
3,3-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	NA	NA	NA	NA		
Acenaphthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Benzo(a)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Liver, lung, skin	IRIS	NA	NA	NA	NA		
Benzo(a)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, stomach	IRIS	NA	NA	NA	NA		
Benzo(b)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA		
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA		
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E+00	B2	Liver	Gavage/IRIS	NA	NA	NA	NA		
Bis(2ethylhexyl)phthalate	2.5E-07	2.9E-07	1.9E-07	2.2E-07	No	1.40E-02	B2	Liver	IRIS	3.5E-09	4.1E-09	2.7E-09	3.1E-09		
Butylbenzylphthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA		
Chrysene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Malignant lymphoma	IRIS	NA	NA	NA	NA		
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, mammary	IRIS	NA	NA	NA	NA		
Di-n-butylphthalate	3.8E-07	4.5E-07	9.6E-06	1.1E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Fluorene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Hexachlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	NA	NA	NA	NA		
Hexachlorobutadiene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	NA	NA	NA	NA		
Hexachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	NA	NA	NA	NA		
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, skin	IRIS	NA	NA	NA	NA		
Isophrone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	NA	NA	NA	NA		
Naphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Nitrobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	NA	NA	NA	NA		
N-nitrosodiphenylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.90E-03	B2		Diet/IRIS	NA	NA	NA	NA		
Pentachlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochromocytoma	Oral/IRIS	NA	NA	NA	NA		
Phenanthrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Phenol	4.9E-07	5.7E-07	3.8E-07	4.5E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
PESTICIDES															
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	NA	NA		
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA		
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	NA	NA		
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA		
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA		
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA		
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA		
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	NA	NA	NA	NA		

TABLE D.1-8
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK CHILD MAXIMUM	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SURFACE WATER										2.3E-07 CHILD MEAN 3.2E-07 CHILD MAX
INORGANICS										
Aluminum	9.3E-06	3.0E-05	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Antimony	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0E+00	NA	
Arsenic	1.2E-07	1.6E-07	No	1.75E+00	A	Skin	IRIS	2E-07	3E-07	
Barium	1.0E-06	1.0E-06	No	NA			NA/IRIS,HEAST	0E+00	NA	
Beryllium	0.0E+00	0.0E+00	No	4.30E+00	B2	Gross tumors all sites combined	Water/IRIS	0E+00	NA	
Cadmium	1.6E-07	2.7E-07	No	NA			NA/IRIS,HEAST	0E+00	NA	
Calcium	1.7E-03	2.4E-03	No	NA			NA/IRIS,HEAST	0E+00	NA	
Chromium	1.0E-07	3.3E-07	No	NA			NA/IRIS,HEAST	0E+00	NA	
Cobalt	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Copper	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Cyanide	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Iron	1.4E-04	1.5E-03	No	NA			NA/IRIS,HEAST	0E+00	NA	
Lead	1.9E-07	3.1E-07	No	NA	B2	Renal tumors	Oral/IRIS	0E+00	NA	
Magnesium	6.2E-04	1.5E-03	No	NA			NA/IRIS,HEAST	0E+00	NA	
Manganese	1.4E-05	1.6E-04	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Mercury	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Nickel	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0E+00	NA	
Potassium	2.6E-04	9.0E-04	No	NA			NA/IRIS,HEAST	0E+00	NA	
Selenium	1.2E-07	2.5E-07	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Silver	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA	
Sodium	1.3E-03	1.5E-03	No	NA			NA/IRIS,HEAST	0E+00	NA	
Thallium	1.0E-07	8.2E-06	No	NA			IRIS,HEAST	0E+00	NA	
Vanadium	4.1E-07	4.1E-07	No	NA			NA/IRIS,HEAST	0E+00	NA	
Zinc	3.7E-06	9.7E-05	No	NA			NA/IRIS,HEAST	0E+00	NA	
VOLATILES										
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		IRIS	0E+00	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	0E+00	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma		0E+00	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver		0E+00	NA	
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		0E+00	NA	
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		0E+00	NA	
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	0E+00	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	0E+00	NA	
Bromoform	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	0E+00	NA	
Carbon disulfide	2.8E-07	2.1E-06	No	NA			NA/IRIS,HEAST	0E+00	NA	
Carbon Tetrachloride	2.1E-07	2.4E-07	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	3E-08	3E-08	
Dibromochloromethane	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	0E+00	NA	
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	0E+00	NA	
Tetrachloroethene	0.0E+00	0.0E+00	No	0.05	B2	Liver	Gavage/HEAST	0E+00	NA	
Trichloroethene	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	0E+00	NA	

TABLE D.1-8 (cont.)
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK CHILD MAXIMUM
SEMIVOLATILES									
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/HEAST	0E+00	NA
2-Methylnaphthalene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0E+00	NA
2,4-Dinitrotoluene	0.0E+00	0.0E+00	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	0E+00	NA
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0E+00	NA
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	No	1.10E-02	B2	Leukemia	Diet/IRIS	0E+00	NA
2,6-Dinitrotoluene	0.0E+00	0.0E+00	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	0E+00	NA
3,3-Dichlorobenzidine	0.0E+00	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	0E+00	NA
Acenaphthene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	0E+00	NA
Anthracene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Benzo(a)anthracene	0.0E+00	0.0E+00	No	1.15E+01	B2	Liver, lung, skin	IRIS	0E+00	NA
Benzo(a)pyrene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, stomach	IRIS	0E+00	NA
Benzo(b)fluoranthene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	0E+00	NA
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	0E+00	NA
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	No	1.10E+00	B2	Liver	Gavage/IRIS	0E+00	NA
Bis(2ethylhexyl)phthalate	2.1E-07	1.6E-07	No	1.40E-02	B2	Liver	IRIS	3E-09	2E-09
Butylbenzylphthalate	0.0E+00	0.0E+00	No	NA	C	Leukemia	Diet/IRIS	0E+00	NA
Chrysene	0.0E+00	0.0E+00	No	1.15E+01	B2	Malignant lymphoma	IRIS	0E+00	NA
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	0E+00	NA
Di-n-butylphthalate	3.3E-07	8.2E-08	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Fluoranthene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Fluorene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Hexachlorobenzene	0.0E+00	0.0E+00	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	0E+00	NA
Hexachlorobutadiene	0.0E+00	0.0E+00	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	0E+00	NA
Hexachloroethane	0.0E+00	0.0E+00	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	0E+00	NA
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	0E+00	NA
Isophrone	0.0E+00	0.0E+00	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	0E+00	NA
Naphthalene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Nitrobenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	0E+00	NA
N-nitrosodiphenylamine	0.0E+00	0.0E+00	No	4.90E-03	B2		Diet/IRIS	0E+00	NA
Pentachlorophenol	0.0E+00	0.0E+00	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochromocytoma	Oral/IRIS	0E+00	NA
Phenanthrene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Phenol	4.1E-07	3.3E-07	No	NA	D		NA/IRIS,HEAST	0E+00	NA
Pyrene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	0E+00	NA
PESTICIDES									
4,4'-DDD	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	0E+00	NA
4,4'-DDE	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	0E+00	NA
4,4'-DDT	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	0E+00	NA
Aldrin	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	0E+00	NA
Alpha-chlordane	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0E+00	NA
Dieldrin	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	0E+00	NA
Heptachlor	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	0E+00	NA
Toxaphene	0.0E+00	0.0E+00	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	0E+00	NA

TABLE D.1-9
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFY FACTOR	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX	TOTAL HAZARD INDEX	
																3.7E-03	9.0E-02	CHILD MEAN
																2.3E-03	5.6E-02	ADULT MEAN
																2.0E-03	1.3E-01	CHILD MAXIMUM
																1.3E-03	8.9E-02	ADULT MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																		
VOLATILES																		
1,1,1-Trichloroethane	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	1.1E-06	6.7E-07	3.7E-07	2.3E-07			
1,1,2-Trichloroethane	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	2.4E-05	1.5E-05	8.3E-06	5.1E-06			
1,1,2,2-Tetrachloroethane	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
1,2-Dichloropropane	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	NA			NA/HEAST			NA	NA	NA	NA			
1,3-Dichloropropene(cis)	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	3.2E-04	2.0E-04	1.1E-04	6.8E-05			
1,3-Dichloropropene(trans)	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	3.2E-04	2.0E-04	1.1E-04	6.8E-05			
Benzene	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Bromodichloromethane	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	4.9E-06	3.0E-06	1.7E-06	1.0E-06			
Bromoform	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	4.9E-06	3.0E-06	1.7E-06	1.0E-06			
Carbon disulfide	9.7E-08	6.0E-08	1.4E-07	8.6E-08	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	9.7E-07	6.0E-07	1.4E-06	8.6E-07			
Carbon Tetrachloride	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	1.4E-04	8.6E-05	4.8E-05	2.9E-05			
Dibromochloromethane	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	4.9E-06	3.0E-06	1.7E-06	1.0E-06			
Styrene	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	4.9E-07	3.0E-07	1.7E-07	1.0E-07			
Tetrachloroethene	9.2E-08	5.7E-08	1.1E-08	6.8E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	9.2E-06	5.7E-06	1.1E-06	6.8E-07			
Trichloroethene	9.7E-08	6.0E-08	3.3E-08	2.1E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
SEMIVOLATILES																		
1,4-Dichlorobenzene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
2-Methylnaphthalene	4.4E-07	2.7E-07	1.1E-07	6.5E-08	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
2,4-Dinitrotoluene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
2,4,5-Trichlorophenol	2.7E-08	1.6E-08	1.4E-08	8.6E-07	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	2.7E-05	1.6E-05	1.4E-05	8.6E-06			
2,4,6-Trichlorophenol	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
2,6-Dinitrotoluene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	NA			NA/HEAST			NA	NA	NA	NA			
3,3-Dichlorobenzidine	1.1E-06	6.6E-07	5.5E-07	3.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Acenaphthene	3.7E-07	2.3E-07	4.2E-08	2.6E-08	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS	UF=3000	MF=1	6.1E-06	3.8E-06	7.0E-07	4.3E-07			
Anthracene	4.1E-07	2.5E-07	7.2E-08	4.5E-08	No	3E-01	Low	No observed effects	Gavage/IRIS	UF=3000	MF=1	1.4E-06	8.4E-07	2.4E-07	1.5E-07			
Benzo(a)anthracene	2.4E-07	1.5E-07	8.9E-08	5.5E-08	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
Benzo(a)pyrene	2.0E-07	1.2E-07	6.1E-08	3.8E-08	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
Benzo(b)fluoranthene	3.8E-07	2.4E-07	4.6E-08	2.8E-08	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
Bis(2-chloroethyl)ether	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Bis(2ethylhexyl)phthalate	5.8E-07	3.4E-07	3.9E-08	2.3E-08	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	2.7E-05	1.7E-05	1.9E-04	1.2E-04			
Butylbenzylphthalate	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	2.7E-06	1.7E-06	1.4E-06	8.6E-07			
Chrysene	2.4E-07	1.5E-07	8.3E-08	3.3E-08	No	4E-03			NA/HEAST			NA	NA	NA	NA			
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
Di-n-butylphthalate	2.8E-07	1.7E-07	3.3E-08	2.1E-08	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	2.8E-06	1.7E-06	3.3E-07	2.1E-07			
Fluoranthene	3.3E-07	2.0E-07	1.4E-07	8.9E-08	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	8.2E-06	5.1E-06	3.8E-06	2.2E-06			
Fluorene	4.4E-07	2.7E-07	1.1E-07	6.5E-08	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	1.1E-06	6.8E-06	2.6E-06	1.6E-06			
Hexachlorobenzene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	6.7E-04	4.1E-04	3.5E-04	2.1E-04			
Hexachlorobutadiene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	2.7E-04	1.7E-04	1.4E-04	8.6E-05			
Hexachloroethane	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	5.4E-04	3.3E-04	2.8E-04	1.7E-04			
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA			
Isophrone	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	2.7E-06	1.7E-06	1.4E-06	8.6E-07			
Naphthalene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		1.3E-04	8.3E-05	6.9E-05	4.3E-05			
Nitrobenzene	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	5E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS	UF=10,000		1.1E-03	6.8E-04	5.5E-04	3.4E-04			
N-nitrosodipropylamine	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
N-nitrosodiphenylamine	5.4E-07	3.3E-07	2.8E-07	1.7E-07	No	NA			NA/HEAST			NA	NA	NA	NA			
Pentachlorophenol	2.7E-08	1.6E-08	1.4E-08	8.6E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	8.9E-06	5.5E-05	4.6E-05	2.9E-05			
Phenanthrene	2.8E-07	1.7E-07	4.1E-08	2.5E-08	No	4E-03			NA/HEAST			NA	NA	NA	NA			
Phenol	2.8E-07	1.7E-07	8.3E-08	5.1E-08	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	4.6E-07	2.8E-07	1.4E-07	8.6E-08			
Pyrene	4.2E-07	2.6E-07	3.3E-08	2.1E-08	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	1.4E-05	8.6E-06	1.1E-04	6.8E-05			
PESTICIDES																		
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA			
4,4'-DDE	2.8E-08	1.8E-08	2.8E-08	1.8E-08	No	NA						NA	NA	NA	NA			
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA			
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA			
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA			
Dieldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA			
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	NA	NA			
Toxaphene	1.2E-08	7.2E-10	1.2E-08	7.2E-10	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			

TABLE D.1-10
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFY FACTOR	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL																8.4E-02	CHILD MEAN
																5.2E-02	ADULT MEAN
																1.1E-01	CHILD MAXIMUM
																6.7E-02	ADULT MAXIMUM
INORGANICS																	
Aluminum	1.3E-02	8.0E-03	2.7E-02	1.7E-02	No	NA				NA/HEAST							
Antimony	9.3E-06	5.8E-06	1.0E-05	6.4E-06	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS	UF=1000	MF=1	2.3E-02	1.4E-02	2.6E-02	1.6E-02		
Arsenic	1.0E-05	6.3E-06	1.9E-05	1.2E-05	No	1E-03		Keratosis and hyperpigmentation	NA/HEAST	UF=1		1.0E-02	6.3E-03	1.9E-02	1.2E-02		
Barium	3.3E-05	2.1E-05	7.3E-05	4.5E-05	No	7E-02	Medium	None Observed	Water/IRIS	UF=3	MF=1	4.8E-04	2.9E-04	1.0E-03	6.4E-04		
Beryllium	5.5E-07	3.4E-07	1.2E-06	7.1E-07	No	5E-03	Low	None Observed	Water/IRIS	UF=100	MF=1	1.1E-04	6.8E-05	2.3E-04	1.4E-04		
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	UF=10	MF=1	NA	NA	NA	NA		
Calcium	1.8E-03	1.1E-03	2.3E-03	1.4E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Chromium	1.5E-06	9.3E-06	3.4E-06	2.1E-06	No	5E-03	Low	None Observed	Water/IRIS	UF=500	MF=1	3.0E-03	1.9E-03	6.7E-03	4.1E-03		
Cobalt	2.1E-05	1.3E-05	4.3E-05	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Copper	1.8E-06	5.6E-06	5.7E-06	3.5E-06	No	4E-02		Local GI Irritation	NA/HEAST			3.6E-04	1.4E-04	1.4E-03	8.8E-04		
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Weight lose,thyroid effects,myelin degeneration	Diet/IRIS	UF=100	MF=5	NA	NA	NA	NA		
Iron	4.6E-02	2.8E-02	9.1E-02	5.6E-02	No	NA			NA/HEAST			NA	NA	NA	NA		
Lead	2.0E-05	7.6E-06	4.4E-05	1.6E-05	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA		
Magnesium	4.0E-03	2.5E-03	8.8E-03	3.6E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Manganese	6.7E-04	4.1E-04	1.0E-03	6.6E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	UF=1	MF=1	6.7E-03	4.1E-03	1.0E-02	6.5E-03		
Mercury	3.7E-07	2.3E-07	5.3E-07	3.3E-07	No	3E-04		Kidney effects	Oral/HEAST	UF=1000		1.2E-03	7.6E-04	1.8E-03	1.1E-03		
Nickel	3.0E-05	1.9E-05	6.0E-05	3.7E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Potassium	6.3E-04	3.9E-04	5.6E-04	3.5E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	UF=3	MF=1	NA	NA	NA	NA		
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-03	Medium	Argyria	Oral/IRIS/HEAST	UF=2	MF=1	NA	NA	NA	NA		
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Thallium	1.6E-06	1.0E-06	2.0E-06	1.2E-06	No	7E-05		Increased SGOT and serum LDH levels, alopecia	Diet/HEAST	UF=3000		2.3E-02	1.4E-02	2.8E-02	1.7E-02		
Vanadium	2.2E-05	1.3E-05	4.0E-05	2.5E-05	No	7E-03		None Observed	Water/HEAST	UF=100		3.1E-03	1.9E-03	5.7E-03	3.5E-03		
Zinc	1.3E-04	8.2E-05	1.6E-04	1.1E-04	No	2E-01		Anemia	Therapeutic/HEAS	UF=10		6.6E-04	4.1E-04	8.3E-04	5.7E-04		
VOLATILES																	
1,1,1-Trichloroethane	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	4.3E-07	2.7E-07	1.5E-06	9.1E-07		
1,1,2-Trichloroethane	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	9.7E-06	6.0E-06	3.3E-05	2.1E-06		
1,1,2,2-Tetrachloroethane	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloropropane	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	NA			NA/HEAST			NA	NA	NA	NA		
1,3-Dichloropropene (cis)	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	1.3E-04	8.0E-06	4.4E-05	2.7E-06		
1,3-Dichloropropene (trans)	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	1.3E-04	8.0E-06	4.4E-05	2.7E-06		
Benzene	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	1.9E-06	1.2E-06	6.7E-07	4.1E-07		
Bromoform	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	1.9E-06	1.2E-06	6.7E-07	4.1E-07		
Carbon disulfide	3.9E-06	2.4E-06	6.8E-06	3.4E-06	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	3.9E-07	2.4E-07	5.5E-07	3.4E-07		
Carbon Tetrachloride	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	5.6E-05	3.4E-05	1.9E-05	1.2E-05		
Dibromochloromethane	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	1.9E-06	1.2E-06	6.7E-07	4.1E-07		
Styrene	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	1.9E-07	1.2E-07	6.7E-06	4.1E-06		
Tetrachloroethene	3.7E-06	2.3E-06	4.4E-06	2.7E-06	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	3.7E-06	2.3E-06	4.4E-07	2.7E-07		
Trichloroethene	3.9E-06	2.4E-06	1.3E-05	8.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		

TABLE D.1-10 (cont.)
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFY FACTOR	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL															
SEMIVOLATILES															
1,4-Dichlorobenzene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	1.8E-06	1.1E-06	4.2E-07	2.6E-07	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
2,4-Dinitrotoluene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,4,5-Trichlorophenol	1.1E-05	6.8E-06	5.5E-06	3.4E-06	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	1.1E-04	6.8E-05	5.5E-05	3.4E-05
2,4,6-Trichlorophenol	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	NA			NA/HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	4.3E-06	2.6E-06	2.2E-06	1.4E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	1.5E-06	9.1E-07	1.7E-07	1.0E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAS	UF=3000	MF=1	2.5E-05	1.5E-05	2.8E-06	1.7E-06
Anthracene	1.6E-06	1.0E-06	2.9E-07	1.8E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAS	UF=3000	MF=1	5.5E-06	3.4E-06	9.6E-07	5.9E-07
Benzo(a)anthracene	9.6E-07	6.0E-07	3.6E-07	2.2E-07	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(a)pyrene	8.1E-07	5.0E-07	2.4E-07	1.5E-07	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(b)fluoranthene	1.5E-06	9.4E-07	1.9E-07	1.2E-07	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2-chloroethyl)ether	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	2.2E-06	1.4E-06	1.5E-05	9.3E-06	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	1.1E-04	6.8E-05	7.5E-04	4.7E-04
Butylbenzylphthalate	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	1.1E-05	6.8E-06	5.5E-06	3.4E-06
Chrysene	9.8E-07	6.0E-07	2.1E-05	1.3E-05	No	4E-03			NA/HEAST			NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Di-n-butylphthalate	1.1E-06	6.9E-07	1.3E-07	8.2E-08	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	1.1E-05	6.9E-06	1.3E-06	8.2E-07
Fluoranthene	1.3E-06	8.1E-07	5.8E-07	3.6E-07	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	3.3E-05	2.0E-05	1.4E-05	8.9E-06
Fluorene	1.6E-06	1.1E-06	4.2E-07	2.6E-07	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	4.4E-05	2.7E-05	1.1E-05	6.5E-06
Hexachlorobenzene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	2.7E-03	1.7E-03	1.4E-03	8.6E-04
Hexachlorobutadiene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	1.1E-03	6.6E-04	5.5E-04	3.4E-04
Hexachloroethane	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	2.1E-03	1.3E-03	1.1E-03	6.6E-04
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Isophrone	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	1.1E-05	6.6E-06	5.5E-06	3.4E-06
Naphthalene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		5.4E-04	3.3E-04	2.8E-04	1.7E-04
Nitrobenzene	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	5E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS	UF=10,000		4.3E-03	2.7E-03	2.2E-03	1.4E-03
N-nitroso-di-n-propylamine	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	2.1E-06	1.3E-06	1.1E-06	6.8E-07	No	NA			NA/HEAST			NA	NA	NA	NA
Pentachlorophenol	1.1E-05	6.6E-06	5.5E-06	3.4E-06	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	3.5E-04	2.2E-04	1.8E-04	1.1E-04
Phenanthrene	1.1E-06	6.8E-07	1.6E-06	1.0E-06	No	4E-03			NA/HEAST			NA	NA	NA	NA
Phenol	1.1E-06	6.8E-07	3.3E-07	2.1E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	1.8E-06	1.1E-06	5.5E-07	3.4E-07
Pyrene	1.7E-06	1.0E-06	1.3E-05	8.2E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	5.6E-05	3.4E-05	4.4E-04	2.7E-04
PESTICIDES															
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA
4,4'-DDE	1.0E-06	6.2E-09	1.0E-06	6.2E-09	No	NA						NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Delidrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	NA	NA
Toxaphene	4.7E-09	2.9E-09	4.7E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA

TABLE D.1-11
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFY FACTOR	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT ADULT MEAN	HAZARD QUOTIENT CHILD MAX	HAZARD QUOTIENT ADULT MAX	PATHWAY HAZARD INDEX	
																2.2E-03	CHILD MEAN
																1.0E-03	ADULT MEAN
																2.6E-03	CHILD MAXIMUM
																1.2E-03	ADULT MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN WATER																	
VOLATILES																	
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA	NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Carbon disulfide	1.9E-06	9.0E-07	1.8E-06	8.8E-06	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	1.9E-05	9.0E-06	1.8E-04	8.8E-05		
Carbon Tetrachloride	1.4E-06	6.7E-07	1.7E-06	7.8E-07	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	2.1E-03	9.6E-04	2.4E-03	1.1E-03		
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
SEMIVOLATILES																	
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
2-Methylnaphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
2,4-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
2,6-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA		
3,3-Dichlorobenzidine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Acenaphthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAS	UF=3000	MF=1	NA	NA	NA	NA		
Anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAS	UF=3000	MF=1	NA	NA	NA	NA		
Benzo(a)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
Benzo(a)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
Benzo(b)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bis(2ethylhexyl)phthalate	1.6E-06	8.6E-07	1.1E-06	5.2E-07	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	7.4E-06	3.4E-05	5.6E-06	2.6E-06		
Butylbenzylphthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	NA	NA	NA	NA		
Chrysene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA	NA	NA		
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
Di-n-butylphthalate	2.2E-06	1.0E-06	5.8E-07	2.6E-07	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	2.2E-05	1.0E-05	5.8E-06	2.6E-06		
Fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	NA	NA	NA	NA		
Fluorene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	NA	NA	NA	NA		
Hexachlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Hexachlorobutadiene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Hexachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA		
Isophrone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Naphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		NA	NA	NA	NA		
Nitrobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS	UF=10,000		NA	NA	NA	NA		
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
N-nitrosodiphenylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA		
Pentachlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Phenanthrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA	NA	NA		
Phenol	2.6E-06	1.3E-06	2.2E-06	1.0E-06	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	4.7E-06	2.2E-06	3.7E-06	1.7E-06		
Pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	NA	NA	NA	NA		
PESTICIDES																	
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA		
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA		
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Deldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	NA	NA		
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		

TABLE D.1-12
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT CHILD MAX.	PATHWAY HAZARD INDEX (HI)	
												1.4E-02	CHILD MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SURFACE WATER												2.5E-02	CHILD MAXIMUM
INORGANICS													
Aluminum	5.4E-05	1.8E-04	No	NA				NA/HEAST		NA	NA		
Antimony	0.0E+00	0.0E+00	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST	UF=1000	MF=1	NA	NA		
Arsenic	6.7E-07	9.5E-07	No	1E-03		Keratosis and hyperpigmentation	NA/HEAST	UF=1		7E-04	1E-03		
Barium	6.0E-06	5.9E-06	No	7E-02	Medium	None Observed	Water/IRIS	UF=3	MF=1	9E-05	8E-05		
Beryllium	0.0E+00	0.0E+00	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=100	MF=1	NA	NA		
Cadmium	9.1E-07	1.6E-06	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	UF=10	MF=1	9E-04	2E-03		
Calcium	1.0E-02	1.4E-02	No	NA			NA/IRIS,HEAST			NA	NA		
Chromium	6.0E-07	1.9E-06	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=500	MF=1	1E-04	4E-04		
Cobalt	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Copper	0.0E+00	0.0E+00	No	4E-02		Local GI irritation	NA/HEAST			NA	NA		
Cyanide	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss,thyroid effects,myelin degeneration	Diet/IRIS	UF=100	MF=5	NA	NA		
Iron	8.1E-04	8.6E-03	No	NA			NA/HEAST			NA	NA		
Lead	1.1E-06	1.8E-06	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA		
Magnesium	3.6E-03	8.6E-03	No	NA			NA/IRIS,HEAST			NA	NA		
Manganese	8.1E-05	9.2E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	UF=1	MF=1	8E-04	9E-03		
Mercury	0.0E+00	0.0E+00	No	3E-04		Kidney effects	Oral/HEAST	UF=1000		NA	NA		
Nickel	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Potassium	1.5E-03	5.2E-03	No	NA			NA/IRIS,HEAST			NA	NA		
Selenium	7.2E-07	1.5E-06	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	UF=3	MF=1	1E-04	3E-04		
Silver	0.0E+00	0.0E+00	No	3E-03	Medium	Argyria	Oral/IRIS/HEAST	UF=2	MF=1	NA	NA		
Sodium	7.6E-03	8.5E-03	No	NA			NA/IRIS,HEAST			NA	NA		
Thallium	6.0E-07	4.8E-07	No	7E-05		Increased SGOT and serum LDH levels, alopecia	Diet/HEAST	UF=3000		9E-03	7E-03		
Vanadium	2.4E-06	2.4E-06	No	7E-03		None Observed	Water/HEAST	UF=100		3E-04	3E-04		
Zinc	2.2E-05	5.7E-04	No	2E-01		Anemia	Therapeutic/HEAS	UF=10		1E-04	3E-03		
VOLATILES													
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA		
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	NA	NA		
Bromoform	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA		
Carbon disulfide	1.6E-06	1.2E-05	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	2E-05	1E-04		
Carbon Tetrachloride	1.2E-06	1.4E-06	No	7E-04	Medium	Liver lesions	Gavage/IRIS			2E-03	2E-03		
Dibromochloromethane	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS			NA	NA		
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS			NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS			NA	NA		
Trichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		

TABLE D.1-12 (cont.)
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT CHILD MEAN	HAZARD QUOTIENT CHILD MAX.
SEMIVOLATILES											
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
2-Methylnaphthalene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA
2,4-Dinitrotoluene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	NA	NA
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	No	NA		Liver and kidney pathology	NA/IRIS,HEAST			NA	NA
2,6-Dinitrotoluene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA
3,3-Dichlorobenzidine	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Acenaphthene	0.0E+00	0.0E+00	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAS	UF=3000	MF=1	NA	NA
Anthracene	0.0E+00	0.0E+00	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAS	UF=3000	MF=1	NA	NA
Benzo(a)anthracene	0.0E+00	0.0E+00	No	4E-03		No observed effects	NA/IRIS,HEAST			NA	NA
Benzo(a)pyrene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA
Benzo(b)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA
Bis(2ethylhexyl)phthalate	1.3E-06	9.5E-07	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	6E-05	5E-05
Butylbenzylphthalate	0.0E+00	0.0E+00	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	NA	NA
Chrysene	0.0E+00	0.0E+00	No	4E-03		Effects on body wt gain,testes,liver,kidney	NA/HEAST			NA	NA
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA
Di-n-butylphthalate	1.9E-06	4.8E-07	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	2E-05	5E-06
Fluoranthene	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	NA	NA
Fluorene	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	NA	NA
Hexachlorobenzene	0.0E+00	0.0E+00	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	NA	NA
Hexachlorobutadiene	0.0E+00	0.0E+00	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	NA	NA
Hexachloroethane	0.0E+00	0.0E+00	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	NA	NA
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	4E-03		Atrophy and degeneration of the renal tubules	NA/IRIS,HEAST			NA	NA
Isophrone	0.0E+00	0.0E+00	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	NA	NA
Naphthalene	0.0E+00	0.0E+00	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		NA	NA
Nitrobenzene	0.0E+00	0.0E+00	No	5E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS,HE/	UF=10,000		NA	NA
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	No	NA		Hematologic,adrenal,renal and hepatic lesions	NA/IRIS,HEAST			NA	NA
N-nitrosodiphenylamine	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA
Pentachlorophenol	0.0E+00	0.0E+00	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	NA	NA
Phenanthrene	0.0E+00	0.0E+00	No	4E-03		Liver and kidney pathology	NA/HEAST			NA	NA
Phenol	2.4E-06	1.9E-06	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	4E-06	3E-06
Pyrene	0.0E+00	0.0E+00	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	NA	NA
PESTICIDES											
4,4'-DDD	0.0E+00	0.0E+00	No	NA						NA	NA
4,4'-DDE	0.0E+00	0.0E+00	No	NA						NA	NA
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA
Aldrin	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA
Deildrin	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA
Heptachlor	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA
Toxaphene	0.0E+00	0.0E+00	No	NA		Liver weight increases in males	NA/IRIS,HEAST			NA	NA

TABLE D.2-1
SCENARIO 2
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	ABSORBED DOSE NONCANCER MEAN (mg/kg/day)	ABSORBED DOSE CANCER MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER MAX. (mg/kg/day)	ABSORBED DOSE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERSION FACTOR (10E-6kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3974.73	11700.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.70	8.70	1.0E-06	500	0.00	250	1	70.0	365	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	11.38	16.70	1.0E-06	500	0.00	250	1	70.0	365	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.01	21.90	1.0E-06	500	0.00	250	1	70.0	365	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.34	0.47	1.0E-06	500	0.00	250	1	70.0	365	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	443.05	1520.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.63	19.10	1.0E-06	500	0.00	250	1	70.0	365	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	17.50	22.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20.03	36.20	1.0E-06	500	0.00	250	1	70.0	365	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	32300.15	41000.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.59	11.90	1.0E-06	500	0.00	250	1	70.0	365	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1534.56	4480.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	492.25	642.50	1.0E-06	500	0.00	250	1	70.0	365	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	27.10	37.70	1.0E-06	500	0.00	250	1	70.0	365	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	99.08	428.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.35	0.41	1.0E-06	500	0.00	250	1	70.0	365	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.34	0.63	1.0E-06	500	0.00	250	1	70.0	365	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.80	0.89	1.0E-06	500	0.00	250	1	70.0	365	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	14.85	20.70	1.0E-06	500	0.00	250	1	70.0	365	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	76.46	103.00	1.0E-06	500	0.00	250	1	70.0	365	25550
VOLATILES														
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Tetrachloroethene	6.5E-09	9.3E-11	4.9E-09	7.0E-11	0.0027	0.0020	1.0E-06	500	0.50	250	1	70.0	365	25550
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
2-Methylnaphthalene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4-Dinitrotoluene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4,5-Trichlorophenol	2.8E-07	4.0E-09	4.6E-07	6.6E-09	1.14	1.90	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4,6-Trichlorophenol	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
2,6-Dinitrotoluene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
3,3-Dichlorobenzidine	1.1E-07	1.6E-09	1.9E-07	2.7E-09	0.46	0.77	1.0E-06	500	0.05	250	1	70.0	365	25550
Acenaphthene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Anthracene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)anthracene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)pyrene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(b)fluoranthene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(ghi)perylene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(k)fluoranthene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Bis(2-chloroethyl)ether	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550
Butylbenzylphthalate	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Chrysene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Dibenzo(a,h)anthracene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Di-n-butylphthalate	8.7E-08	1.2E-09	8.1E-07	1.2E-08	0.35	3.30	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluoranthene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluorene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Hexachlorobenzene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Hexachlorobutadiene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Hexachloroethane	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Indeno(123cd)pyrene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Isophrone	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Naphthalene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Nitrobenzene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
N-nitroso-di-n-propylamine	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
N-nitrosodiphenylamine	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Pentachlorophenol	2.8E-07	4.0E-09	4.6E-07	6.6E-09	1.14	1.90	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenanthrene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenol	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
Pyrene	5.6E-08	8.0E-10	9.3E-08	1.3E-09	0.23	0.38	1.0E-06	500	0.05	250	1	70.0	365	25550
PESTICIDES														
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDT	2.3E-09	3.2E-11	4.2E-09	5.9E-11	0.0093	0.0170	1.0E-06	500	0.05	250	1	70.0	365	25550
Aldrin	9.9E-10	1.4E-11	7.3E-10	1.0E-11	0.0040	0.0030	1.0E-06	500	0.05	250	1	70.0	365	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550
Deildrin	2.3E-09	3.2E-11	2.4E-09	3.5E-11	0.0092	0.0100	1.0E-06	500	0.05	250	1	70.0	365	25550
Heptachlor	9.9E-10	1.4E-11	7.3E-10	1.0E-11	0.0040	0.0030	1.0E-06	500	0.05	250	1	70.0	365	25550
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550

TABLE D.2-2
SCENARIO 2
INGESTION OF CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX (mg/kg/day)	INTAKE CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	1.9E-02	2.7E-04	5.5E-02	7.9E-04	3974.73	11700.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Antimony	3.1E-05	4.5E-07	4.1E-05	5.8E-07	6.70	8.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Arsenic	5.3E-05	7.6E-07	8.8E-05	1.3E-06	11.38	18.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Barium	4.2E-05	6.0E-07	1.0E-04	1.5E-06	9.01	21.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Beryllium	1.6E-06	2.3E-06	2.2E-06	3.2E-08	0.34	0.47	480	1.0E-06	250	1	1.00	70.0	365	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Calcium	2.1E-03	3.0E-05	7.1E-03	1.0E-04	443.05	1520.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Chromium	1.2E-05	1.7E-07	2.7E-05	3.8E-07	8.63	19.10	480	1.0E-06	250	1	0.30	70.0	365	25550
Cobalt	8.2E-05	1.2E-06	1.0E-04	1.5E-06	17.50	22.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Copper	9.4E-05	1.3E-06	1.7E-04	2.4E-06	20.03	35.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Iron	1.5E-01	2.2E-03	1.9E-01	2.8E-03	32300.15	41000.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Lead	9.3E-06	1.3E-07	1.7E-05	2.4E-07	8.59	11.90	480	1.0E-06	250	1	0.30	70.0	365	25550
Magnesium	7.2E-03	1.0E-04	2.1E-02	3.0E-04	1534.56	4460.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Manganese	2.3E-03	3.3E-05	3.0E-03	4.3E-05	492.25	642.50	480	1.0E-06	250	1	1.00	70.0	365	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Nickel	1.3E-04	1.8E-06	1.8E-04	2.5E-06	27.10	37.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Potassium	4.7E-04	6.6E-06	2.0E-03	2.9E-05	99.06	428.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Selenium	1.6E-06	2.3E-08	1.9E-06	2.8E-08	0.35	0.41	480	1.0E-06	250	1	1.00	70.0	365	25550
Silver	1.6E-06	2.3E-08	2.9E-06	4.2E-08	0.34	0.63	480	1.0E-06	250	1	1.00	70.0	365	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Thallium	2.8E-06	4.0E-08	3.2E-06	4.6E-08	0.60	0.69	480	1.0E-06	250	1	1.00	70.0	365	25550
Vanadium	6.5E-05	9.8E-07	9.7E-05	1.4E-06	14.55	20.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Zinc	3.6E-04	5.1E-06	4.8E-04	6.9E-06	76.46	103.00	480	1.0E-06	250	1	1.00	70.0	365	25550
VOLATILES														
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Tetrachloroethene	1.3E-08	1.8E-10	9.4E-09	1.3E-10	0.0027	0.0020	480	1.0E-06	250	1	1.00	70.0	365	25550
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
2-Methylnaphthalene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4-Dinitrotoluene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4,5-Trichlorophenol	5.4E-06	7.7E-08	8.9E-06	1.3E-07	1.14	1.90	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4,6-Trichlorophenol	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
2,6-Dinitrotoluene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
3,3-Dichlorobenzidine	2.2E-06	3.1E-08	3.6E-06	5.2E-08	0.46	0.77	480	1.0E-06	250	1	1.00	70.0	365	25550
Acenaphthene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Anthracene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)anthracene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)pyrene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(b)fluoranthene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(ghi)perylene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(k)fluoranthene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Bis(2-chloroethyl)ether	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Butylbenzylphthalate	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Chrysene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibenzo(a,h)anthracene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Di-n-butylphthalate	1.7E-06	2.4E-08	1.5E-05	2.2E-07	0.35	3.30	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluoranthene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluorene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Hexachlorobenzene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Hexachlorobutadiene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Hexachloroethane	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Indeno(123cd)pyrene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Isophrone	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Naphthalene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Nitrobenzene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
N-nitroso-di-n-propylamine	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
N-nitrosodiphenylamine	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Pentachlorophenol	5.4E-06	7.7E-08	8.9E-06	1.3E-07	1.14	1.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Phenanthrene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Phenol	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
Pyrene	1.1E-06	1.5E-08	1.8E-06	2.5E-08	0.23	0.38	480	1.0E-06	250	1	1.00	70.0	365	25550
PESTICIDES														
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDT	1.3E-06	1.9E-10	2.4E-06	3.4E-10	0.0093	0.0170	480	1.0E-06	250	1	0.30	70.0	365	25550
Aldrin	5.7E-09	8.1E-11	4.2E-09	6.0E-11	0.0040	0.0030	480	1.0E-06	250	1	0.30	70.0	365	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	0.30	70.0	365	25550
Deildrin	1.3E-06	1.9E-10	1.4E-06	2.0E-10	0.0092	0.0100	480	1.0E-06	250	1	0.30	70.0	365	25550
Heptachlor	5.7E-09	8.1E-11	4.2E-09	6.0E-11	0.0040	0.0030	480	1.0E-06	250	1	0.30	70.0	365	25550
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	0.30	70.0	365	25550

TABLE D.2-3
SCENARIO 2
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
TANK FARM FOUR

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR (m3/shift)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	2.89E-06	4.13E-06	8.51E-06	1.22E-07	3.72E-09	3974.73	11700.00	20	250	1	1.0	70	365	25550
Antimony	4.67E-09	6.96E-11	6.33E-09	9.04E-11	3.72E-09	6.70	8.70	20	250	1	1.0	70	365	25550
Arsenic	8.26E-09	1.18E-10	1.36E-08	1.94E-10	3.72E-09	11.38	18.70	20	250	1	1.0	70	365	25550
Barium	6.55E-09	9.36E-11	1.59E-08	2.27E-10	3.72E-09	9.01	21.90	20	250	1	1.0	70	365	25550
Beryllium	2.45E-10	3.50E-12	3.42E-10	4.88E-12	3.72E-09	0.34	0.47	20	250	1	1.0	70	365	25550
Cadmium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Calcium	3.22E-07	4.60E-09	1.11E-06	1.58E-08	3.72E-09	443.05	1520.00	20	250	1	1.0	70	365	25550
Chromium	6.28E-09	8.97E-11	1.39E-08	1.98E-10	3.72E-09	8.63	19.10	20	250	1	1.0	70	365	25550
Cobalt	1.27E-08	1.82E-10	1.60E-08	2.29E-10	3.72E-09	17.50	22.00	20	250	1	1.0	70	365	25550
Copper	1.46E-08	2.08E-10	2.56E-08	3.66E-10	3.72E-09	20.03	35.20	20	250	1	1.0	70	365	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Iron	2.35E-05	3.36E-07	2.98E-05	4.26E-07	3.72E-09	32300.15	41000.00	20	250	1	1.0	70	365	25550
Lead	4.79E-09	6.85E-11	8.65E-09	1.24E-10	3.72E-09	6.59	11.90	20	250	1	1.0	70	365	25550
Magnesium	1.12E-06	1.59E-08	3.24E-06	4.63E-08	3.72E-09	1534.56	4460.00	20	250	1	1.0	70	365	25550
Manganese	3.56E-07	5.11E-09	4.67E-07	6.67E-09	3.72E-09	492.25	642.50	20	250	1	1.0	70	365	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Nickel	1.97E-08	2.82E-10	2.74E-08	3.92E-10	3.72E-09	27.10	37.70	20	250	1	1.0	70	365	25550
Potassium	7.20E-08	1.03E-09	3.11E-07	4.45E-09	3.72E-09	99.06	428.00	20	250	1	1.0	70	365	25550
Selenium	2.53E-10	3.61E-12	2.98E-10	4.26E-12	3.72E-09	0.35	0.41	20	250	1	1.0	70	365	25550
Silver	2.49E-10	3.56E-12	4.54E-10	6.49E-12	3.72E-09	0.34	0.63	20	250	1	1.0	70	365	25550
Sodium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Thallium	4.38E-10	6.26E-12	5.02E-10	7.17E-12	3.72E-09	0.60	0.89	20	250	1	1.0	70	365	25550
Vanadium	1.06E-08	1.51E-10	1.51E-08	2.15E-10	3.72E-09	14.55	20.70	20	250	1	1.0	70	365	25550
Zinc	5.56E-08	7.94E-10	7.49E-08	1.07E-09	3.72E-09	76.46	103.00	20	250	1	1.0	70	365	25550
VOLATILES														
1,1,1-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
1,3-Dichloropropane (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
1,3-Dichloropropane (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Carbon disulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Carbon Tetrachloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Tetrachloroethene	1.94E-12	2.77E-14	1.45E-12	2.08E-14	3.72E-09	0.0027	0.0020	20	250	1	1.0	70	365	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
2-Methylnaphthalene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
2,4-Dinitrotoluene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
2,4,5-Trichlorophenol	8.30E-10	1.19E-11	1.36E-09	1.97E-11	3.72E-09	1.14	1.90	20	250	1	1.0	70	365	25550
2,4,6-Trichlorophenol	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
2,6-Dinitrotoluene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
3,3-Dichlorobenzidine	3.35E-10	4.78E-12	5.60E-10	8.00E-12	3.72E-09	0.46	0.77	20	250	1	1.0	70	365	25550
Acenaphthene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Anthracene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Benzo(a)anthracene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Benzo(a)pyrene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Benzo(b)fluoranthene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Benzo(ghi)perylene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Benzo(k)fluoranthene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Bis(2-chloroethyl)ether	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Butylbenzylphthalate	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Chrysene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Dibenzo(a,h)anthracene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Di-n-butylphthalate	2.57E-10	3.67E-12	2.40E-09	3.43E-11	3.72E-09	0.35	3.30	20	250	1	1.0	70	365	25550
Fluoranthene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Fluorene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Hexachlorobenzene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Hexachlorobutadiene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Hexachloroethane	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Indeno(123cd)pyrene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Isophrone	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Naphthalene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Nitrobenzene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
N-nitroso-di-n-propylamine	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
N-nitrosodiphenylamine	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Pentachlorophenol	8.30E-10	1.19E-11	1.36E-09	1.97E-11	3.72E-09	1.14	1.90	20	250	1	1.0	70	365	25550
Phenanthrene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Phenol	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
Pyrene	1.67E-10	2.38E-12	2.76E-10	3.95E-12	3.72E-09	0.23	0.38	20	250	1	1.0	70	365	25550
PESTICIDES														
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
4,4'-DDT	6.76E-12	9.66E-14	1.24E-11	1.77E-13	3.72E-09	0.0093	0.0170	20	250	1	1.0	70	365	25550
Aldrin	2.93E-12	4.19E-14	2.18E-12	3.12E-14	3.72E-09	0.0040	0.0030	20	250	1	1.0	70	365	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550
Deildrin	6.72E-12	9.60E-14	7.27E-12	1.04E-13	3.72E-09	0.0092	0.0100	20	250	1	1.0	70	365	25550
Heptachlor	2.93E-12	4.19E-14	2.18E-12	3.12E-14	3.72E-09	0.0040	0.0030	20	250	1	1.0	70	365	25550
Toxaphene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-09	NA	NA	20	250	1	1.0	70	365	25550

TABLE D.2-4
SCENARIO 2
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK	TOTAL RISK	
										1.1E-06	2.9E-06	MEAN
EXPOSURE PATHWAY: DERI										1.8E-06	4.7E-06	MAXIMUM
VOLATILES												
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA			
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA			
1,2-Dichloropropane	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver	Gavage/HEAST	NA	NA			
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	NA	NA			
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	NA	NA			
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA			
Bromodichloromethane	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	NA	NA			
Bromoform	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	NA	NA			
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA			
Carbon Tetrachloride	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	NA	NA			
Dibromochloromethane	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	NA	NA			
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA			
Tetrachloroethane	9.3E-11	7.0E-11	No	0.05	B2	Liver	Gavage/HEAST	4.8E-12	3.6E-12			
Trichloroethene	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA			
SEMIVOLATILES												
1,4-Dichlorobenzene	8.0E-10	1.3E-09	No	2.40E-02	C	Liver	Gavage/HEAST	1.9E-11	3.2E-11			
2-Methylnaphthalene	8.0E-10	1.3E-09	No	NA			NA/IRIS,HEAST	NA	NA			
2,4-Dinitrotoluene	8.0E-10	1.3E-09	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	5.5E-10	9.0E-10			
2,4,5-Trichlorophenol	4.0E-09	6.6E-09	No	NA			NA/IRIS,HEAST	NA	NA			
2,4,6-Trichlorophenol	8.0E-10	1.3E-09	No	1.10E-02	B2	Leukemia	Diet/IRIS	8.8E-12	1.5E-11			
2,6-Dinitrotoluene	8.0E-10	1.3E-09	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	5.5E-10	9.0E-10			
3,3-Dichlorobenzidine	1.6E-09	2.7E-09	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	7.2E-10	1.2E-09			
Acenaphthene	8.0E-10	1.3E-09	No	NA			NA/IRIS,HEAST	NA	NA			
Anthracene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Benzo(a)anthracene	8.0E-10	1.3E-09	No	NA	B2	Liver, lung, skin	IRIS	NA	NA			
Benzo(a)pyrene	8.0E-10	1.3E-09	No	NA	B2	Lung, stomach	IRIS	NA	NA			
Benzo(b)fluoranthene	8.0E-10	1.3E-09	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA			
Benzo(ghi)perylene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Benzo(k)fluoranthene	8.0E-10	1.3E-09	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA			
Bis(2-chloroethyl)ether	8.0E-10	1.3E-09	No	1.10E+00	B2	Liver	Gavage/IRIS	8.8E-10	1.5E-09			
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	NA	NA			
Butylbenzylphthalate	8.0E-10	1.3E-09	No	NA	C	Leukemia	Diet/IRIS	NA	NA			
Chrysene	8.0E-10	1.3E-09	No	NA	B2	Malignant lymphoma	IRIS	NA	NA			
Dibenzo(a,h)anthracene	8.0E-10	1.3E-09	No	NA	B2	Lung, mammary	IRIS	NA	NA			
Di-n-butylphthalate	1.2E-09	1.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluoranthene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluorene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Hexachlorobenzene	8.0E-10	1.3E-09	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	1.3E-09	2.1E-09			
Hexachlorobutadiene	8.0E-10	1.3E-09	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	6.3E-11	1.0E-10			
Hexachloroethane	8.0E-10	1.3E-09	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	1.1E-11	1.9E-11			
Indeno(123cd)pyrene	8.0E-10	1.3E-09	No	NA	B2	Lung, skin	IRIS	NA	NA			
Isophrone	8.0E-10	1.3E-09	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	3.3E-12	5.4E-12			
Naphthalene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Nitrobenzene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
N-nitroso-di-n-propylamine	8.0E-10	1.3E-09	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	5.6E-09	9.3E-09			
N-nitrosodiphenylamine	8.0E-10	1.3E-09	No	4.90E-03	B2		Diet/IRIS	3.9E-12	6.5E-12			
Pentachlorophenol	4.0E-09	6.6E-09	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochromocytoma	Oral/IRIS	4.8E-10	8.0E-10			
Phenanthrene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Phenol	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Pyrene	8.0E-10	1.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
PESTICIDES												
4,4'-DDD	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA			
4,4'-DDE	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA			
4,4'-DDT	3.2E-11	5.9E-11	No	3.40E-01	B2	Liver tumor	Diet/IRIS	1.1E-11	2.0E-11			
Aldrin	1.4E-11	1.0E-11	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	2.4E-10	1.8E-10			
Alpha-chlordane	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA			
Dieldrin	3.2E-11	3.5E-11	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	5.2E-10	5.6E-10			
Heptachlor	1.4E-11	1.0E-11	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	6.3E-11	4.7E-11			
Toxaphene	0.0E+00	0.0E+00	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	NA	NA			

TABLE D.2-5
SCENARIO 2
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK 2.9E-06 MEAN 4.7E-06 MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										
INORGANICS										
Aluminum	2.7E-04	7.9E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	
Antimony	4.5E-07	5.8E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Arsenic	7.6E-07	1.3E-06	No	1.75E+00	A	Skin	IRIS	1.3E-06	2.2E-06	
Barium	6.0E-07	1.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Beryllium	2.3E-06	3.2E-06	No	4.30E+00	B2	Gross tumors all sites combined	Water/IRIS	9.7E-06	1.4E-07	
Cadmium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Calcium	3.0E-05	1.0E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Chromium	1.7E-07	3.8E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Cobalt	1.2E-06	1.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Copper	1.3E-06	2.4E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Cyanide	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Iron	2.2E-03	2.8E-03	No	NA			NA/IRIS,HEAST	NA	NA	
Lead	1.3E-07	2.4E-07	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	
Magnesium	1.0E-04	3.0E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Manganese	3.3E-05	4.3E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	
Mercury	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nickel	1.6E-06	2.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Potassium	6.6E-06	2.8E-05	No	NA			NA/IRIS,HEAST	NA	NA	
Selenium	2.3E-06	2.8E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Silver	2.3E-06	4.2E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Sodium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Thallium	4.0E-06	4.8E-06	No	NA			IRIS,HEAST	NA	NA	
Vanadium	9.8E-07	1.4E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Zinc	5.1E-06	6.8E-06	No	NA			NA/IRIS,HEAST	NA	NA	
VOLATILES										
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver	Gavage/HEAST	NA	NA	
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	NA	NA	
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid	Gavage/HEAST	NA	NA	
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
Bromoform	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Carbon Tetrachloride	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	NA	NA	
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA	
Tetrachloroethene	1.8E-10	1.3E-10	No	0.05	B2	Liver	Gavage/HEAST	NA	NA	
Trichloroethene	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA	
SEMIVOLATILES										
1,4-Dichlorobenzene	1.8E-06	2.5E-06	No	2.40E-02	C	Liver	Gavage/HEAST	3.7E-10	6.1E-10	
2-Methylnaphthalene	1.8E-06	2.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	
2,4-Dinitrotoluene	1.8E-06	2.5E-06	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	1.0E-06	1.7E-06	
2,4,5-Trichlorophenol	7.7E-06	1.3E-07	No	NA			NA/IRIS,HEAST	NA	NA	
2,4,6-Trichlorophenol	1.8E-06	2.5E-06	No	1.10E-02	B2	Leukemia	Diet/IRIS	1.7E-10	2.8E-10	
2,6-Dinitrotoluene	1.8E-06	2.5E-06	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	1.0E-06	1.7E-06	
3,3-Dichlorobenzidine	3.1E-06	5.2E-06	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.4E-06	2.3E-06	
Acenaphthene	1.8E-06	2.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Anthracene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzo(a)anthracene	1.8E-06	2.5E-06	No	1.15E+01	B2	Liver, lung, skin	IRIS	1.8E-07	2.9E-07	
Benzo(a)pyrene	1.8E-06	2.5E-06	No	1.15E+01	B2	Lung, stomach	IRIS	1.8E-07	2.9E-07	
Benzo(b)fluoranthene	1.8E-06	2.5E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	1.8E-07	2.9E-07	
Benzo(ghi)perylene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzo(k)fluoranthene	1.8E-06	2.5E-06	No	1.15E+01	B2	Lung, thorax, skin	IRIS	1.8E-07	2.9E-07	
Bis(2-chloroethyl)ether	1.8E-06	2.5E-06	No	1.10E+00	B2	Liver	Gavage/IRIS	1.7E-06	2.8E-06	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	NA	NA	
Butylbenzylphthalate	1.8E-06	2.5E-06	No	NA	C	Leukemia	Diet/IRIS	NA	NA	
Chrysene	1.8E-06	2.5E-06	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.8E-07	2.9E-07	
Dibenzo(a,h)anthracene	1.8E-06	2.5E-06	No	1.15E+01	B2	Lung, mammary	IRIS	1.8E-07	2.9E-07	
Di-n-butylphthalate	2.4E-06	2.2E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluoranthene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluorene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Hexachlorobenzene	1.8E-06	2.5E-06	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	2.5E-06	4.1E-06	
Hexachlorobutadiene	1.8E-06	2.5E-06	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	1.2E-09	2.0E-09	
Hexachloroethane	1.8E-06	2.5E-06	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	2.2E-10	3.6E-10	
Indeno(1,2,3-cd)pyrene	1.8E-06	2.5E-06	No	1.15E+01	B2	Lung, skin	IRIS	1.8E-07	2.9E-07	
Isophrone	1.8E-06	2.5E-06	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	6.3E-11	1.0E-10	
Naphthalene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nitrobenzene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
N-nitroso-di-n-propylamine	1.8E-06	2.5E-06	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	1.1E-07	1.8E-07	
N-nitrosodiphenylamine	1.8E-06	2.5E-06	No	4.90E-03	B2		Diet/IRIS	7.9E-11	1.2E-10	
Pentachlorophenol	7.7E-06	1.3E-07	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochromocytoma	Oral/IRIS	9.2E-09	1.5E-08	
Phenanthrene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Phenol	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Pyrene	1.8E-06	2.5E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
PESTICIDES										
4,4'-DDD	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	
4,4'-DDE	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
4,4'-DDT	1.9E-10	3.4E-10	No	3.40E-01	B2	Liver tumor	Diet/IRIS	6.4E-11	1.2E-10	
Aldrin	8.1E-11	6.0E-11	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	1.4E-09	1.0E-09	
Alpha-chlordane	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
Deildrin	1.9E-10	2.0E-10	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	3.0E-09	3.2E-09	
Heptachlor	8.1E-11	6.0E-11	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	3.7E-10	2.7E-10	
Toxaphene	0.0E+00	0.0E+00	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	NA	NA	

TABLE D.2-6
SCENARIO 2
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK
										1.0E-06 MEAN
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST										1.9E-06 MAXIMUM
INORGANICS										
Aluminum	4.1E-08	1.2E-07	No	NA			IRIS,HEAST	NA	NA	
Antimony	7.0E-11	9.0E-11	No	NA			NA/IRIS,HEAST	NA	NA	
Arsenic	1.2E-10	1.9E-10	No	5.0E+01	A	Respiratory tract	Occupational/IRIS	5.9E-09	9.7E-09	
Barium	9.4E-11	2.3E-10	No	NA			IRIS,HEAST	NA	NA	
Beryllium	3.5E-12	4.9E-12	No	8.4E+00	B2	Lung	Occupational/IRIS	2.9E-11	4.1E-11	
Cadmium	0.0E+00	0.0E+00	No	6.3E+00	B1	Respiratory tract	Occupational/IRIS	NA	NA	
Calcium	4.6E-09	1.6E-08	No	NA			IRIS,HEAST	NA	NA	
Chromium	9.0E-11	2.0E-10	No	4.2E+01	A	Lung	Occupational/IRIS	3.8E-09	8.3E-09	
Cobalt	1.8E-10	2.3E-10	No	NA	D		IRIS,HEAST	NA	NA	
Copper	2.1E-10	3.7E-10	No	NA	D		IRIS,HEAST	NA	NA	
Cyanide	0.0E+00	0.0E+00	No	NA	D		IRIS,HEAST	NA	NA	
Iron	3.4E-07	4.3E-07	No	NA			IRIS,HEAST	NA	NA	
Lead	6.8E-11	1.2E-10	No	NA	B2		IRIS,HEAST	NA	NA	
Magnesium	1.4E-08	4.4E-08	No	NA			IRIS,HEAST	NA	NA	
Manganese	5.1E-09	6.7E-09	No	NA	D		IRIS,HEAST	NA	NA	
Mercury	0.0E+00	0.0E+00	No	NA	D		IRIS,HEAST	NA	NA	
Nickel	2.6E-10	3.9E-10	No	6.4E-01	A	Lung and nasal tumors	Occupational/IRIS	2.4E-10	3.3E-10	
Potassium	1.0E-09	4.4E-09	No	NA			IRIS,HEAST	NA	NA	
Selenium	3.6E-12	4.3E-12	No	NA	D		IRIS,HEAST	NA	NA	
Silver	3.6E-12	6.5E-12	No	NA	D		IRIS,HEAST	NA	NA	
Sodium	0.0E+00	0.0E+00	No	NA			IRIS,HEAST	NA	NA	
Thallium	6.3E-12	7.2E-12	No	NA			IRIS,HEAST	NA	NA	
Vanadium	1.5E-10	2.2E-10	No	NA			IRIS,HEAST	NA	NA	
Zinc	7.9E-10	1.1E-09	No	NA			IRIS,HEAST	NA	NA	
VOLATILES										
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA	B2		HEAST	NA	NA	
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA	
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA	
Benzene	0.0E+00	0.0E+00	No	2.9E-02	A	Leukemia	Occupational/IRIS	NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	NA	B2		IRIS,HEAST	NA	NA	
Bromoform	0.0E+00	0.0E+00	No	3.9E-03	B2	Intestinal neoplastic nodules	Gavage/IRIS	NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	NA			IRIS,HEAST	NA	NA	
Carbon Tetrachloride	0.0E+00	0.0E+00	No	1.3E-01	B2	Liver	Gavage/HEAST	NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	NA			IRIS,HEAST	NA	NA	
Styrene	0.0E+00	0.0E+00	No	2.0E-03	B2	Leukemia	HEAST	NA	NA	
Tetrachloroethene	2.6E-14	2.1E-14	No	1.6E-03	B2	Leukemia, liver	HEAST	5.0E-17	3.7E-17	
Trichloroethene	0.0E+00	0.0E+00	No	1.7E-02	B2	Lung	HEAST	NA	NA	
SEMIVOLATILES										
1,4-Dichlorobenzene	2.4E-12	3.9E-12	No	NA	C	Liver	HEAST	NA	NA	
2-Methylnaphthalene	2.4E-12	3.9E-12	No	NA			IRIS,HEAST	NA	NA	
2,4-Dinitrotoluene	2.4E-12	3.9E-12	No	NA		Liver, mammary	IRIS	NA	NA	
2,4,5-Trichlorophenol	1.2E-11	2.0E-11	No	NA			IRIS,HEAST	NA	NA	
2,4,6-Trichlorophenol	2.4E-12	3.9E-12	No	9.0E-04	B2	Leukemia	IRIS	2.1E-15	3.6E-15	
2,6-Dinitrotoluene	2.4E-12	3.9E-12	No	NA	B2	Liver, mammary	IRIS	NA	NA	
3,3-Dichlorobenzidine	4.8E-12	8.0E-12	No	NA	B2		IRIS,HEAST	NA	NA	
Acenaphthene	2.4E-12	3.9E-12	No	NA			IRIS	NA	NA	
Anthracene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
Benzo(a)anthracene	2.4E-12	3.9E-12	No	6.1E+00	B2	Liver, lung, skin	IRIS	1.5E-11	2.4E-11	
Benzo(a)pyrene	2.4E-12	3.9E-12	No	6.1E+00	B2	Stomach, respiratory tract	Inhalation/HEAST	1.5E-11	2.4E-11	
Benzo(b)fluoranthene	2.4E-12	3.9E-12	No	6.1E+00	B2	Lung, thorax, skin	IRIS	1.5E-11	2.4E-11	
Benzo(ghi)perylene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
Benzo(k)fluoranthene	2.4E-12	3.9E-12	No	6.1E+00	B2	Lung, thorax, skin	IRIS	1.5E-11	2.4E-11	
Bis(2-chloroethyl)ether	2.4E-12	3.9E-12	No	1.1E+00	B2	Liver	Oral/HEAST	2.6E-12	4.3E-12	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	NA	B2		HEAST	NA	NA	
Butylbenzylphthalate	2.4E-12	3.9E-12	No	NA	C		IRIS,HEAST	NA	NA	
Chrysene	2.4E-12	3.9E-12	No	6.1E+00	B2	Malignant lymphoma	IRIS	1.5E-11	2.4E-11	
Dibenzo(a,h)anthracene	2.4E-12	3.9E-12	No	6.1E+00	B2	Lung, mammary	IRIS	1.5E-11	2.4E-11	
Di-n-butylphthalate	3.7E-12	3.4E-11	No	NA	D		IRIS	NA	NA	
Fluoranthene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
Fluorene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
Hexachlorobenzene	2.4E-12	3.9E-12	No	1.6E+00	B2	Hepatocellular carcinoma	Oral/IRIS	3.6E-12	6.3E-12	
Hexachlorobutadiene	2.4E-12	3.9E-12	No	7.8E-02	C	Kidney	Diet/IRIS	1.9E-13	3.1E-13	
Hexachloroethane	2.4E-12	3.9E-12	No	1.4E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.3E-14	5.8E-14	
Indeno(123cd)pyrene	2.4E-12	3.9E-12	No	6.1E+00	B2	Lung, skin	IRIS	1.5E-11	2.4E-11	
Isophrone	2.4E-12	3.9E-12	No	NA	D		IRIS,HEAST	NA	NA	
Naphthalene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
Nitrobenzene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
N-nitroso-di-n-propylamine	2.4E-12	3.9E-12	No	NA	B2		IRIS	NA	NA	
N-nitrosodiphenylamine	2.4E-12	3.9E-12	No	NA	B2		IRIS	NA	NA	
Pentachlorophenol	1.2E-11	2.0E-11	No	NA	B2		IRIS	NA	NA	
Phenanthrene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
Phenol	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
Pyrene	2.4E-12	3.9E-12	No	NA	D		IRIS	NA	NA	
PESTICIDES										
4,4'-DDD	0.0E+00	0.0E+00	No	NA	B2		IRIS,HEAST	NA	NA	
4,4'-DDE	0.0E+00	0.0E+00	No	NA	B2		HEAST	NA	NA	
4,4'-DDT	9.7E-14	1.6E-13	No	3.4E-01	B2	Liver	Diet/IRIS,HEAST	3.3E-14	6.0E-14	
Aldrin	4.2E-14	3.1E-14	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	7.1E-13	5.3E-13	
Alpha-chlordane	0.0E+00	0.0E+00	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
Dieldrin	9.6E-14	1.0E-13	No	1.6E+01	B2	Liver carcinoma	Oral/IRIS	1.6E-12	1.7E-12	
Heptachlor	4.2E-14	3.1E-14	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	1.9E-13	1.4E-13	
Toxaphene	0.0E+00	0.0E+00	No	1.1E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	NA	NA	

TABLE D.2-7
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL											2.3E-04	1.9E-01	MEAN
											3.2E-04	2.7E-01	MAXIMUM
VOLATILES													
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	9E-01	Hepatotoxicity	HEAST	UF=100		NA	NA			
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	4E-02	Clinical chemistry alterations	Water/HEAST	UF=100		NA	NA			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA			
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA		HEAST			NA	NA			
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	3E-03	Increased organ weight	Diet/HEAST	UF=1000		NA	NA			
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	3E-03	Increased organ weight	Diet/HEAST	UF=1000		NA	NA			
Benzene	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA			
Bromodichloromethane	0.0E+00	0.0E+00	No	2E-02	Renal cytomegaly	Gavage/HEAST	UF=1000		NA	NA			
Bromoform	0.0E+00	0.0E+00	No	2E-01	Liver effects	Gavage/HEAST	UF=100		NA	NA			
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Fetal toxicity, malformations	Inhalation/HEAST	UF=100		NA	NA			
Carbon Tetrachloride	0.0E+00	0.0E+00	No	7E-03	Liver lesions	HEAST	UF=100		NA	NA			
Dibromochloromethane	0.0E+00	0.0E+00	No	2E-01	Liver lesions	Gavage/HEAST	UF=100		NA	NA			
Styrene	0.0E+00	0.0E+00	No	2E+00	RBC and liver effects	Gavage/HEAST	UF=100		NA	NA			
Tetrachloroethene	6.5E-09	4.9E-09	No	1E-01	Hepatotoxicity	Gavage/HEAST	UF=100		6.5E-08	4.9E-08			
Trichloroethene	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA			
SEMIVOLATILES													
1,4-Dichlorobenzene	5.6E-08	9.3E-08	No	NA		NA/HEAST			NA	NA			
2-Methylnaphthalene	5.6E-08	9.3E-08	No	4E-02		NA/HEAST			1.4E-06	2.3E-06			
2,4-Dinitrotoluene	5.6E-08	9.3E-08	No	NA		NA/HEAST			NA	NA			
2,4,5-Trichlorophenol	2.8E-07	4.6E-07	No	1E+00	Hepatoxicity and kidney effects	Diet/IRIS	UF=100		2.8E-07	4.6E-07			
2,4,6-Trichlorophenol	5.6E-08	9.3E-08	No	NA		NA/HEAST			NA	NA			
2,6-Dinitrotoluene	5.6E-08	9.3E-08	No	NA		NA/HEAST			NA	NA			
3,3-Dichlorobenzidine	1.1E-07	1.9E-07	No	NA		NA/HEAST			NA	NA			
Acenaphthene	5.6E-08	9.3E-08	No	6E-01	Hepatoxicity	Gavage/HEAST	UF=300		9.4E-08	1.5E-07			
Anthracene	5.6E-08	9.3E-08	No	3E+00	No observed effects	Gavage/HEAST	UF=300		1.9E-08	3.1E-08			
Benzo(a)anthracene	5.6E-08	9.3E-08	No	4E-02		NA/HEAST			1.4E-06	2.3E-06			
Benzo(a)pyrene	5.6E-08	9.3E-08	No	4E-02		NA/HEAST			1.4E-06	2.3E-06			
Benzo(b)fluoranthene	5.6E-08	9.3E-08	No	4E-02		NA/HEAST			1.4E-06	2.3E-06			
Benzo(ghi)perylene	5.6E-08	9.3E-08	No	4E-02		NA/HEAST			1.4E-06	2.3E-06			
Benzo(k)fluoranthene	5.6E-08	9.3E-08	No	4E-02		NA/HEAST			1.4E-06	2.3E-06			
Bis(2-chloroethyl)ether	5.6E-08	9.3E-08	No	NA	Decreased hemoglobin, erythrocyte destruction				NA	NA			
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	2E-02	Increased relative liver weight	Diet/HEAST	UF=1000	MF=1	NA	NA			
Butylbenzylphthalate	5.6E-08	9.3E-08	No	2E+00	Effects on body weight gain, testes, liver	Diet/HEAST	UF=100		2.8E-08	4.6E-08			
Chrysene	5.6E-08	9.3E-08	No	4E-02		HEAST			1.4E-06	2.3E-06			
Dibenzo(a,h)anthracene	5.6E-08	9.3E-08	No	4E-02		HEAST			1.4E-06	2.3E-06			
Di-n-butylphthalate	8.7E-08	8.1E-07	No	1E+00	Mortality	Diet/HEAST	UF=100		8.7E-08	8.1E-07			
Fluoranthene	5.6E-08	9.3E-08	No	4E-01	Neuropathy,liver weight changes,hematological changes	Gavage/HEAST	UF=300		1.4E-07	2.3E-07			
Fluorene	5.6E-08	9.3E-08	No	4E-01	Hematological changes	Gavage/HEAST	UF=300		1.4E-07	2.3E-07			
Hexachlorobenzene	5.6E-08	9.3E-08	No	8E-04	Liver and hematologic effects	Diet/HEAST	UF=100		7.0E-05	1.2E-04			
Hexachlorobutadiene	5.6E-08	9.3E-08	No	2E-03	Kidney toxicity	Diet/HEAST	UF=100		2.8E-05	4.6E-05			
Hexachloroethane	5.6E-08	9.3E-08	No	1E-02	Kidney degeneration	Diet/HEAST	UF=100		5.6E-06	9.3E-06			
Indeno(123cd)pyrene	5.6E-08	9.3E-08	No	4E-02		HEAST			1.4E-06	2.3E-06			
Isophrone	5.6E-08	9.3E-08	No	2E+00	Kidney lesions	Oral/HEAST	UF=100		2.8E-08	4.6E-08			
Naphthalene	5.6E-08	9.3E-08	No	4E-02	Decreased body weight gain	Gavage/HEAST	UF=1000		1.4E-06	2.3E-06			
Nitrobenzene	5.6E-08	9.3E-08	No	5E-03	Hematological, adrenal, renal and hepatic lesions	HEAST	UF=1000		1.1E-05	1.9E-05			
N-nitroso-di-n-propylamine	5.6E-08	9.3E-08	No	NA		NA/HEAST			NA	NA			
N-nitrosodiphenylamine	5.6E-08	9.3E-08	No	NA		HEAST			NA	NA			
Pentachlorophenol	2.8E-07	4.6E-07	No	3E-02	Fetotoxicity	Gavage/HEAST	UF=100		9.3E-06	1.5E-05			
Phenanthrene	5.6E-08	9.3E-08	No	4E-02		HEAST			1.4E-06	2.3E-06			
Phenol	5.6E-08	9.3E-08	No	6E-01	Reduced fetal body weight	Gavage/HEAST	UF=100		9.4E-08	1.5E-07			
Pyrene	5.6E-08	9.3E-08	No	3E-01	Renal effects	Gavage/HEAST	UF=300		1.9E-07	3.1E-07			
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA			
4,4'-DDE	0.0E+00	0.0E+00	No	NA		HEAST			NA	NA			
4,4'-DDT	2.3E-09	4.2E-09	No	5E-04	Liver lesions	Diet/HEAST	UF=100		4.5E-06	8.3E-06			
Aldrin	9.9E-10	7.3E-10	No	3E-05	Liver lesions	Diet/HEAST	UF=1000		3.3E-05	2.4E-05			
Alpha-chlordane	0.0E+00	0.0E+00	No	6E-05					NA	NA			
Dieldrin	2.3E-09	2.4E-09	No	5E-05	Liver lesions	Diet/HEAST	UF=100		4.5E-05	4.9E-05			
Heptachlor	9.9E-10	7.3E-10	No	5E-04	Increased liver weight	Diet/HEAST	UF=300		2.0E-06	1.5E-06			
Toxaphene	0.0E+00	0.0E+00	No	NA		NA/IRIS,HEAST			NA	NA			

TABLE D.2-8
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)
											1.9E-01 MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL											2.6E-01 MAXIMUM
INORGANICS											
Aluminum	1.9E-02	5.6E-02	No	NA		HEAST			NA	NA	
Antimony	3.1E-06	4.1E-06	No	4E-04	Reduced lifespan, altered blood chemistry	Water/HEAST	UF=1000		7.9E-02	1.0E-01	
Arsenic	5.3E-06	6.6E-06	No	1E-03	Keratosis and hyperpigmentation	NA/HEAST	UF=1		5.3E-02	6.6E-02	
Barium	4.2E-06	1.0E-04	No	6E-02	Increased blood pressure	Water/HEAST	UF=100		8.8E-04	2.1E-03	
Beryllium	1.6E-06	2.2E-06	No	6E-03	None observed	Water/HEAST	UF=100		3.2E-04	4.4E-04	
Cadmium	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA	
Calcium	2.1E-03	7.1E-03	No	NA		NA/HEAST			NA	NA	
Chromium	1.2E-06	2.7E-06	No	2E-02	Not defined	Water/HEAST	UF=100		6.1E-04	1.3E-03	
Cobalt	9.2E-06	1.0E-04	No	NA		HEAST			NA	NA	
Copper	9.4E-06	1.7E-04	No	4E-02	Local GI irritation	NA/HEAST	UF=NA		2.4E-03	4.1E-03	
Cyanide	0.0E+00	0.0E+00	No	2E-02	Weight loss, thyroid effects, myeloid degeneration	Diet/HEAST	UF=500		NA	NA	
Iron	1.5E-01	1.9E-01	No	NA					NA	NA	
Lead	9.3E-06	1.7E-05	No	NA		NA/HEAST			NA	NA	
Magnesium	7.2E-03	2.1E-02	No	NA		NA/HEAST			NA	NA	
Manganese	2.3E-03	3.0E-03	No	1E-01	No effect	Occupational/HEAST	UF=1		2.3E-02	3.0E-02	
Mercury	0.0E+00	0.0E+00	No	3E-04	Kidney effects	Oral/HEAST	UF=1000		NA	NA	
Nickel	1.3E-04	1.8E-04	No	2E-02	Decreased body weight and organ weights	Diet/HEAST	UF=300		6.4E-03	8.9E-03	
Potassium	4.7E-04	2.0E-03	No	NA		NA/HEAST			NA	NA	
Selenium	1.8E-06	1.8E-06	No	NA		HEAST			NA	NA	
Silver	1.6E-06	2.9E-06	No	3E-03	Argyria	HEAST	UF=2		5.4E-04	9.8E-04	
Sodium	0.0E+00	0.0E+00	No	NA		HEAST			NA	NA	
Thallium	2.8E-06	3.2E-06	No	7E-04	Increased SGOT and serum LDH levels, alopecia	HEAST	UF=300		4.0E-03	4.6E-03	
Vanadium	6.8E-06	9.7E-06	No	7E-03	None observed	Water/HEAST	UF=100		9.8E-03	1.4E-02	
Zinc	3.6E-04	4.9E-04	No	2E-01	Anemia	Therapeutic/HEAST	UF=10		1.8E-03	2.4E-03	
VOLATILES											
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	9E-01	Hepatotoxicity	HEAST	UF=100		NA	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	4E-02	Clinical chemistry alterations	Water/HEAST	UF=100		NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA		HEAST			NA	NA	
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	3E-03	Increased organ weight	Diet/HEAST	UF=1000		NA	NA	
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	3E-03	Increased organ weight	Diet/HEAST	UF=1000		NA	NA	
Benzene	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	2E-02	Renal cytomegaly	Gavage/HEAST	UF=1000		NA	NA	
Bromoform	0.0E+00	0.0E+00	No	2E-01	Liver effects	Gavage/HEAST	UF=100		NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Fetal toxicity, malformations	Inhalation/HEAST	UF=100		NA	NA	
Carbon Tetrachloride	0.0E+00	0.0E+00	No	7E-03	Liver lesions	HEAST	UF=100		NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	2E-01	Liver lesions	Gavage/HEAST	UF=100		NA	NA	
Styrene	0.0E+00	0.0E+00	No	2E+00	RBC and liver effects	Gavage/HEAST	UF=100		NA	NA	
Tetrachloroethene	1.3E-08	9.4E-09	No	1E-01	Hepatotoxicity	Gavage/HEAST	UF=100		1.3E-07	9.4E-08	
Trichloroethene	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA	
SEMIVOLATILES											
1,4-Dichlorobenzene	1.1E-06	1.8E-06	No	NA		NA/HEAST			NA	NA	
2-Methylnaphthalene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
2,4-Dinitrotoluene	1.1E-06	1.8E-06	No	NA		NA/HEAST			NA	NA	
2,4,6-Trichlorophenol	5.4E-06	8.9E-06	No	1E+00	Hepatotoxicity and kidney effects	Diet/IRIS	UF=100		5.4E-06	8.9E-06	
2,4,6-Trichlorophenol	1.1E-06	1.8E-06	No	NA		NA/HEAST			NA	NA	
2,6-Dinitrotoluene	1.1E-06	1.8E-06	No	NA		NA/HEAST			NA	NA	
3,3-Dichlorobenzidine	2.2E-06	3.6E-06	No	NA		NA/HEAST			NA	NA	
Acenaphthene	1.1E-06	1.8E-06	No	6E-01	Hepatotoxicity	Gavage/HEAST	UF=300		1.8E-06	3.0E-06	
Anthracene	1.1E-06	1.8E-06	No	3E+00	No observed effects	Gavage/HEAST	UF=300		3.6E-07	5.9E-07	
Benzo(a)anthracene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Benzo(a)pyrene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Benzo(b)fluoranthene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Benzo(ghi)perylene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Benzo(k)fluoranthene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Bis(2-chloroethyl)ether	1.1E-06	1.8E-06	No	NA		NA/HEAST			NA	NA	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	2E-02	Increased relative liver weight	Diet/HEAST	UF=1000	MF=1	NA	NA	
Butylbenzylphthalate	1.1E-06	1.8E-06	No	2E+00	Effects on body weight gain, testes, liver	Diet/HEAST	UF=100		5.4E-07	8.9E-07	
Chrysene	1.1E-06	1.8E-06	No	4E-02		HEAST			2.7E-06	4.5E-06	
Dibenzo(a,h)anthracene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Di-n-butylphthalate	1.7E-06	1.4E-05	No	1E+00	Mortality	Diet/HEAST	UF=100		1.7E-06	1.5E-05	
Fluoranthene	1.1E-06	1.8E-06	No	4E-01	Neuropathy,liver weight changes,hematological changes	Gavage/HEAST	UF=300		2.7E-06	4.5E-06	
Fluorene	1.1E-06	1.8E-06	No	4E-01	Hematological changes	Gavage/HEAST	UF=300		2.7E-06	4.5E-06	
Hexachlorobenzene	1.1E-06	1.8E-06	No	8E-04	Liver and hematologic effects	Diet/HEAST	UF=100		1.3E-03	2.2E-03	
Hexachlorobutadiene	1.1E-06	1.8E-06	No	2E-03	Kidney toxicity	Diet/HEAST	UF=100		5.4E-04	8.9E-04	
Hexachloroethane	1.1E-06	1.8E-06	No	1E-02	Kidney degeneration	Diet/HEAST	UF=100		1.1E-04	1.8E-04	
Indeno(123cd)pyrene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Isophrone	1.1E-06	1.8E-06	No	2E+00	Kidney lesions	Oral/HEAST	UF=100		5.4E-07	8.9E-07	
Naphthalene	1.1E-06	1.8E-06	No	4E-02	Decreased body weight gain	Gavage/HEAST	UF=1000		2.7E-05	4.5E-05	
Nitrobenzene	1.1E-06	1.8E-06	No	6E-03	Hematological, adrenal, renal and hepatic lesions	HEAST	UF=1000		2.2E-04	3.6E-04	
N-nitroso-di-n-propylamine	1.1E-06	1.8E-06	No	NA		NA/HEAST			NA	NA	
N-nitrosodiphenylamine	1.1E-06	1.8E-06	No	NA		NA/HEAST			NA	NA	
Pentachlorophenol	5.4E-06	8.9E-06	No	3E-02	Fetotoxicity	Gavage/HEAST	UF=100		1.8E-04	3.0E-04	
Phenanthrene	1.1E-06	1.8E-06	No	4E-02		NA/HEAST			2.7E-06	4.5E-06	
Phenol	1.1E-06	1.8E-06	No	6E-01	Reduced fetal body weight	Gavage/HEAST	UF=100		1.8E-06	3.0E-06	
Pyrene	1.1E-06	1.8E-06	No	3E-01	Renal effects	Gavage/HEAST	UF=300		3.6E-06	5.9E-06	
PESTICIDES											
4,4'-DDD	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA	
4,4'-DDE	0.0E+00	0.0E+00	No	NA		NA/HEAST			NA	NA	
4,4'-DDT	1.3E-08	2.4E-08	No	6E-04	Liver lesions	Diet/HEAST	UF=100		2.2E-05	4.0E-05	
Aldrin	8.7E-09	4.2E-09	No	3E-05	Liver lesions	Diet/HEAST	UF=1000		1.5E-04	1.4E-04	
Alpha-chlordane	0.0E+00	0.0E+00	No	6E-05					NA	NA	
Dieldrin	1.3E-08	1.4E-08	No	5E-05	Liver lesions	Diet/HEAST	UF=100		2.6E-04	2.8E-04	
Heptachlor	8.7E-09	4.2E-09	No	5E-04	Increased liver weight	Diet/HEAST	UF=300		1.1E-05	8.5E-06	
Toxaphene	0.0E+00	0.0E+00	No	NA		NA/IRIS,HEAST			NA	NA	

TABLE D.2-9
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)
											3.6E-03 MEAN
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST											4.7E-03 MAXIMUM
INORGANICS											
Aluminum	2.9E-06	8.5E-06	No	NA		HEAST			NA	NA	
Antimony	4.9E-09	6.3E-09	No	4.0E-04					1.2E-05	1.6E-05	
Arsenic	8.3E-09	1.4E-08	No	1.0E-03					8.3E-06	1.4E-05	
Barium	6.6E-09	1.6E-08	No	1.0E-03	Fetotoxicity	HEAST	UF=100		6.6E-06	1.6E-05	
Beryllium	2.4E-10	3.4E-10	No	5.0E-03					4.9E-08	6.8E-08	
Cadmium	0.0E+00	0.0E+00	No	1.0E-03					NA	NA	
Calcium	3.2E-07	1.1E-06	No	NA		IRIS,HEAST			NA	NA	
Chromium	6.3E-09	1.4E-08	No	7.0E-02	Nasal mucosa atrophy	HEAST	UF=30		9.0E-06	2.0E-07	
Cobalt	1.3E-08	1.6E-08	No	NA		IRIS,HEAST			NA	NA	
Copper	1.8E-08	2.6E-08	No	NA		IRIS,HEAST			NA	NA	
Cyanide	0.0E+00	0.0E+00	No	2.0E-02	Myelin degeneration				NA	NA	
Iron	2.3E-06	3.0E-06	No	NA		IRIS,HEAST			NA	NA	
Lead	4.9E-09	8.7E-09	No	NA		IRIS,HEAST			NA	NA	
Magnesium	1.1E-06	3.2E-06	No	NA		IRIS,HEAST			NA	NA	
Manganese	3.6E-07	4.7E-07	No	1.0E-04	Increased resp. symptoms and psycho-motor disturbanc	Occupational/HEAST	UF=900		3.6E-03	4.7E-03	
Mercury	0.0E+00	0.0E+00	No	9.0E-05	Neurotoxicity	Occupational/HEAST	UF=30		NA	NA	
Nickel	2.0E-06	2.7E-06	No	2.0E-02					9.9E-07	1.4E-06	
Potassium	7.2E-08	3.1E-07	No	NA		IRIS,HEAST			NA	NA	
Selenium	2.8E-10	3.0E-10	No	NA		IRIS,HEAST			NA	NA	
Silver	2.8E-10	4.5E-10	No	NA		IRIS,HEAST			NA	NA	
Sodium	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
Thallium	4.4E-10	6.0E-10	No	NA		IRIS,HEAST			NA	NA	
Vanadium	1.1E-08	1.5E-08	No	7.0E-03					1.5E-06	2.2E-06	
Zinc	6.9E-08	7.5E-08	No	2.0E-01					2.8E-07	3.7E-07	
VOLATILES											
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	3.0E+00	Hepatotoxicity	HEAST	UF=100		NA	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA		HEAST			NA	NA	
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	6.0E-03	Hypertrophy, hyperplasia in nasal mucosa	HEAST	UF=30		NA	NA	
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	6.0E-03	Hypertrophy, hyperplasia in nasal mucosa	HEAST	UF=30		NA	NA	
Benzene	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
Bromoform	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	3.0E-03	Fetal toxicity	HEAST	UF=1000		NA	NA	
Carbon Tetrachloride	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
Styrene	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
Tetrachloroethene	1.9E-12	1.8E-12	No	NA		IRIS,HEAST			NA	NA	
Trichloroethene	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
SEMIVOLATILES											
1,4-Dichlorobenzene	1.7E-10	2.8E-10	No	2.0E-01	Liver and kidney effects	HEAST	UF=100		8.3E-10	1.4E-09	
2-Methylnaphthalene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
2,4-Dinitrotoluene	1.7E-10	2.8E-10	No	NA		HEAST			NA	NA	
2,4,5-Trichlorophenol	8.3E-10	1.4E-09	No	NA		IRIS,HEAST			NA	NA	
2,4,6-Trichlorophenol	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
2,6-Dinitrotoluene	1.7E-10	2.8E-10	No	NA		HEAST			NA	NA	
3,3-Dichlorobenzidine	3.3E-10	5.6E-10	No	NA		IRIS,HEAST			NA	NA	
Acenaphthene	1.7E-10	2.8E-10	No	6.0E-01					2.8E-10	4.6E-10	
Anthracene	1.7E-10	2.8E-10	No	3.0E+00					5.6E-11	9.2E-11	
Benzo(a)anthracene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
Benzo(a)pyrene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
Benzo(b)fluoranthene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
Benzo(ghi)perylene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
Benzo(k)fluoranthene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
Bis(2-chloroethyl)ether	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	2.0E-02					NA	NA	
Butylbenzylphthalate	1.7E-10	2.8E-10	No	2.0E+00					8.3E-11	1.4E-10	
Chrysene	1.7E-10	2.8E-10	No	4.0E-02		HEAST			4.2E-09	6.9E-09	
Dibenzo(a,h)anthracene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
Di-n-butylphthalate	2.8E-10	2.4E-09	No	1.0E+00					2.8E-10	2.4E-09	
Fluoranthene	1.7E-10	2.8E-10	No	4.0E-01					4.2E-10	6.9E-10	
Fluorene	1.7E-10	2.8E-10	No	4.0E-01					4.2E-10	6.9E-10	
Hexachlorobenzene	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
Hexachlorobutadiene	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
Hexachloroethane	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
Indeno(123cd)pyrene	1.7E-10	2.8E-10	No	4.0E-02		IRIS,HEAST			4.2E-09	6.9E-09	
Isophrone	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
Naphthalene	1.7E-10	2.8E-10	No	4.0E-02					4.2E-09	6.9E-09	
Nitrobenzene	1.7E-10	2.8E-10	No	5.0E-03	Hematologic, adrenal, hepatic lesions	HEAST	UF=300		2.8E-08	4.6E-08	
N-nitroso-di-n-propylamine	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
N-nitrosodiphenylamine	1.7E-10	2.8E-10	No	NA		IRIS,HEAST			NA	NA	
Pentachlorophenol	8.3E-10	1.4E-09	No	NA		IRIS,HEAST			NA	NA	
Phenanthrene	1.7E-10	2.8E-10	No	4.0E-02		HEAST			4.2E-09	6.9E-09	
Phenol	1.7E-10	2.8E-10	No	NA		HEAST			NA	NA	
Pyrene	1.7E-10	2.8E-10	No	3.0E-01					5.6E-10	9.2E-10	
PESTICIDES											
4,4'-DDD	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
4,4'-DDE	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	
4,4'-DDT	6.8E-12	1.2E-11	No	5.0E-04	Liver lesions				1.4E-08	2.5E-08	
Aldrin	2.8E-12	2.3E-12	No	NA		IRIS,HEAST			NA	NA	
Alpha-chlordane	0.0E+00	0.0E+00	No						NA	NA	
Dieldrin	6.7E-12	7.3E-12	No	NA		IRIS,HEAST			NA	NA	
Heptachlor	2.8E-12	2.3E-12	No	NA		IRIS,HEAST			NA	NA	
Toxaphene	0.0E+00	0.0E+00	No	NA		IRIS,HEAST			NA	NA	

TABLE D.3-1
SCENARIO 3
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	ABSORBED DOSE NONCANCER MEAN (mg/kg/day)	ABSORBED DOSE CANCER MEAN (mg/kg/day)	ABSORBED DOSE NONCANCER MAX. (mg/kg/day)	ABSORBED DOSE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	RAF (unitless)	EF (days/year)	ED (year)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5816.05	12200.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.20	4.70	1.0E-06	500	0.00	250	25	70.0	9125	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.60	8.50	1.0E-06	500	0.00	250	25	70.0	9125	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	15.01	32.80	1.0E-06	500	0.00	250	25	70.0	9125	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.25	0.52	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	796.36	1030.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.79	15.10	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.36	19.30	1.0E-06	500	0.00	250	25	70.0	9125	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.71	25.80	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20929.72	41100.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	16.43	40.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1804.31	2610.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	300.65	471.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.17	0.24	1.0E-06	500	0.00	250	25	70.0	9125	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.53	27.20	1.0E-06	500	0.00	250	25	70.0	9125	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	263.56	253.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.73	0.88	1.0E-06	500	0.00	250	25	70.0	9125	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.76	18.10	1.0E-06	500	0.00	250	25	70.0	9125	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	59.52	83.40	1.0E-06	500	0.00	250	25	70.0	9125	25550
VOLATILES														
1,1,1-Trichloroethane	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,2-Trichloroethane	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,2,2-Tetrachloroethane	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,2-Dichloropropane	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,3-Dichloropropane (cis)	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,3-Dichloropropane (trans)	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Benzene	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Bromodichloromethane	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Bromoform	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Carbon disulfide	4.3E-08	1.5E-08	6.1E-08	2.2E-08	0.018	0.025	1.0E-06	500	0.50	250	25	70.0	9125	25550
Carbon Tetrachloride	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Dibromochloromethane	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Styrene	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Tetrachloroethene	4.0E-08	1.4E-08	4.9E-09	1.7E-09	0.017	0.002	1.0E-06	500	0.50	250	25	70.0	9125	25550
Trichloroethene	4.3E-08	1.5E-08	1.5E-08	5.2E-09	0.018	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
2-Methylnaphthalene	2.0E-07	7.0E-08	4.6E-08	1.7E-08	0.80	0.19	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,4-Dinitrotoluene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,4,5-Trichlorophenol	1.2E-06	4.2E-07	6.1E-07	2.2E-07	4.80	2.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,4,6-Trichlorophenol	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,6-Dinitrotoluene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
3,3-Dichlorobenzidine	4.7E-07	1.7E-07	2.4E-07	8.7E-08	1.93	1.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Acenaphthene	1.6E-07	5.8E-08	1.9E-08	6.6E-09	0.66	0.08	1.0E-06	500	0.05	250	25	70.0	9125	25550
Anthracene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)anthracene	1.1E-07	3.8E-08	3.9E-08	1.4E-08	0.44	0.16	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)pyrene	8.9E-08	3.2E-08	2.7E-08	9.6E-09	0.36	0.11	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(b)fluoranthene	1.7E-07	6.0E-08	2.1E-08	7.5E-09	0.69	0.09	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Bis(2-chloroethyl)ether	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Bis(2ethylhexyl)phthalate	2.4E-07	8.6E-08	1.7E-06	5.9E-07	0.99	8.80	1.0E-06	500	0.05	250	25	70.0	9125	25550
Butylbenzylphthalate	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Chrysene	1.1E-07	3.9E-08	2.3E-06	8.4E-07	0.44	9.60	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Di-n-butylphthalate	1.2E-07	4.4E-08	1.5E-08	5.2E-09	0.51	0.06	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluoranthene	1.4E-07	5.2E-08	6.4E-08	2.3E-08	0.59	0.26	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluorene	2.0E-07	7.0E-08	4.6E-08	1.7E-08	0.80	0.19	1.0E-06	500	0.05	250	25	70.0	9125	25550
Hexachlorobenzene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Hexachlorobutadiene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Hexachloroethane	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Isophrone	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Naphthalene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Nitrobenzene	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
N-nitroso-di-n-propylamir	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
N-nitrosodiphenylamine	2.4E-07	8.5E-08	1.2E-07	4.4E-08	0.97	0.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Pentachlorophenol	1.2E-06	4.2E-07	6.1E-07	2.2E-07	4.80	2.50	1.0E-06	500	0.05	250	25	70.0	9125	25550
Phenanthrene	1.2E-07	4.4E-08	1.8E-08	6.4E-07	0.50	7.30	1.0E-06	500	0.05	250	25	70.0	9125	25550
Phenol	1.2E-07	4.4E-08	3.7E-08	1.3E-08	0.50	0.15	1.0E-06	500	0.05	250	25	70.0	9125	25550
Pyrene	1.8E-07	6.6E-08	1.5E-06	5.2E-07	0.75	6.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
PESTICIDES														
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
4,4'-DDE	1.1E-09	3.9E-10	1.1E-09	3.9E-10	0.0045	0.0045	1.0E-06	500	0.05	250	25	70.0	9125	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	25	70.0	9125	25550
Toxaphene	5.1E-10	1.8E-10	5.1E-10	1.8E-10	0.0021	0.0021	1.0E-06	500	0.05	250	25	70.0	9125	25550

TABLE D.3-2
SCENARIO 3
INGESTION OF CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR (mg/day)	CONVERSION FACTOR (10E-6 kg/mg)	EF (days/year)	ED (years)	RAF (unitless)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS														
Aluminum	2.8E-03	1.0E-03	6.0E-03	2.1E-03	5816.05	12200.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Antimony	2.1E-06	7.3E-07	2.3E-06	8.2E-07	4.20	4.70	50	1.0E-06	250	25	1.00	70.0	9125	25550
Arsenic	2.3E-06	8.0E-07	4.2E-06	1.5E-06	4.60	8.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Barium	7.3E-06	2.6E-06	1.6E-05	5.7E-06	15.01	32.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Beryllium	1.2E-07	4.3E-08	2.5E-07	9.1E-08	0.25	0.52	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Calcium	3.9E-04	1.4E-04	5.0E-04	1.8E-04	798.36	1030.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chromium	3.3E-06	1.2E-06	7.4E-06	2.6E-06	6.79	15.10	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cobalt	4.6E-06	1.6E-06	9.4E-06	3.4E-06	9.36	19.30	50	1.0E-06	250	25	1.00	70.0	9125	25550
Copper	6.7E-06	2.4E-06	1.3E-05	4.5E-06	13.71	25.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Iron	1.0E-02	3.7E-03	2.0E-02	7.2E-03	20929.72	41100.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Lead	2.7E-06	9.7E-07	5.9E-06	2.1E-06	18.43	40.00	50	1.0E-06	250	25	0.30	70.0	9125	25550
Magnesium	8.8E-04	3.2E-04	1.3E-03	4.6E-04	1804.31	2610.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Manganese	1.5E-04	5.3E-05	2.3E-04	8.2E-05	300.85	471.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Mercury	8.2E-08	2.9E-08	1.2E-07	4.2E-08	0.17	0.24	50	1.0E-06	250	25	1.00	70.0	9125	25550
Nickel	6.6E-06	2.4E-06	1.3E-05	4.6E-06	13.53	27.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
Potassium	1.4E-04	5.0E-05	1.2E-04	4.4E-05	283.56	253.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Thallium	3.6E-07	1.3E-07	4.3E-07	1.5E-07	0.73	0.86	50	1.0E-06	250	25	1.00	70.0	9125	25550
Vanadium	4.8E-06	1.7E-06	8.9E-06	3.2E-06	9.78	18.10	50	1.0E-06	250	25	1.00	70.0	9125	25550
Zinc	2.9E-05	1.0E-05	4.1E-05	1.5E-05	59.52	83.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
VOLATILES														
1,1,1-Trichloroethane	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2-Trichloroethane	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2,2-Tetrachloroethane	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloropropane	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,3-Dichloropropane (cis)	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,3-Dichloropropane (trans)	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzene	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromodichloromethane	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromoform	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Carbon disulfide	8.6E-09	3.1E-09	1.2E-08	4.4E-09	0.018	0.025	50	1.0E-06	250	25	1.00	70.0	9125	25550
Carbon Tetrachloride	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibromochloromethane	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Styrene	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Tetrachloroethene	8.1E-09	2.9E-09	9.8E-10	3.5E-10	0.017	0.002	50	1.0E-06	250	25	1.00	70.0	9125	25550
Trichloroethene	8.6E-09	3.1E-09	2.9E-09	1.0E-09	0.018	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
2-Methylnaphthalene	3.9E-07	1.4E-07	9.3E-08	3.3E-08	0.80	0.19	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4-Dinitrotoluene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4,5-Trichlorophenol	2.3E-06	8.4E-07	1.2E-06	4.4E-07	4.80	2.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4,6-Trichlorophenol	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,6-Dinitrotoluene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
3,3-Dichlorobenzidine	9.4E-07	3.4E-07	4.9E-07	1.7E-07	1.93	1.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Acenaphthene	3.2E-07	1.2E-07	3.7E-08	1.3E-08	0.66	0.08	50	1.0E-06	250	25	1.00	70.0	9125	25550
Anthracene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)anthracene	2.2E-07	7.7E-08	7.8E-08	2.8E-08	0.44	0.16	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)pyrene	1.8E-07	6.4E-08	5.4E-08	1.9E-08	0.36	0.11	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(b)fluoranthene	3.4E-07	1.2E-07	4.2E-08	1.5E-08	0.69	0.09	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bis(2-chloroethyl)ether	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bis(2ethylhexyl)phthalate	4.8E-07	1.7E-07	3.3E-06	1.2E-06	0.99	6.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Butylbenzylphthalate	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chrysene	2.2E-07	7.7E-08	4.7E-08	1.7E-08	0.44	9.80	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Di-n-butylphthalate	2.5E-07	8.8E-08	2.9E-08	1.0E-08	0.51	0.06	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluoranthene	2.9E-07	1.0E-07	1.3E-07	4.5E-08	0.59	0.26	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluorene	3.9E-07	1.4E-07	9.3E-08	3.3E-08	0.80	0.19	50	1.0E-06	250	25	1.00	70.0	9125	25550
Hexachlorobenzene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Hexachlorobutadiene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Hexachloroethane	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Isophrone	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Naphthalene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
Nitrobenzene	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
N-nitroso-di-n-propylamine	4.7E-07	1.7E-07	2.4E-07	8.7E-08	0.97	0.50	50	1.0E-06	250	25	1.00	70.0	9125	25550
N-nitrosodiphenylamine	1.4E-07	5.1E-08	7.3E-08	2.6E-08	0.97	0.50	50	1.0E-06	250	25	0.30	70.0	9125	25550
Pentachlorophenol	7.0E-07	2.5E-07	3.7E-07	1.3E-07	4.80	2.50	50	1.0E-06	250	25	0.30	70.0	9125	25550
Phenanthrene	7.3E-06	2.6E-06	1.1E-06	3.8E-07	0.50	7.30	50	1.0E-06	250	25	0.30	70.0	9125	25550
Phenol	7.3E-08	2.6E-08	2.2E-08	7.9E-09	0.50	0.15	50	1.0E-06	250	25	0.30	70.0	9125	25550
Pyrene	1.1E-07	4.0E-08	8.8E-07	3.1E-07	0.75	6.00	50	1.0E-06	250	25	0.30	70.0	9125	25550
PESTICIDES														
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDE	6.6E-10	2.4E-10	6.6E-10	2.4E-10	0.0045	0.0045	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	0.30	70.0	9125	25550
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	0.30	70.0	9125	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	0.30	70.0	9125	25550
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	0.30	70.0	9125	25550
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	0.30	70.0	9125	25550
Toxaphene	3.1E-10	1.1E-10	3.1E-10	1.1E-10	0.0021	0.0021	50	1.0E-06	250	25	0.30	70.0	9125	25550

TABLE D.3-3
SCENARIO 3
INGESTION OF CHEMICALS IN DRINKING WATER
TANK FARM FOUR

COMPOUND NAME	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	(liter/day)	EF (days/year)	(years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS												
Aluminum	4.93E-02	1.76E-02	2.46E+00	8.77E-01	5.04	251.00	1.0	250	25	70	9125	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Arsenic	1.36E-04	4.86E-05	4.36E-03	1.57E-03	0.014	0.448	1.0	250	25	70	9125	25550
Barium	4.84E-04	1.77E-04	6.61E-03	2.36E-03	0.051	0.676	1.0	250	25	70	9125	25550
Beryllium	1.11E-05	3.97E-06	8.32E-05	2.97E-05	0.001	0.009	1.0	250	25	70	9125	25550
Cadmium	3.48E-05	1.24E-05	8.32E-05	2.97E-05	0.0036	0.0085	1.0	250	25	70	9125	25550
Calcium	2.56E-01	9.13E-02	8.47E-01	3.03E-01	26.13	86.60	1.0	250	25	70	9125	25550
Chromium	1.62E-04	5.78E-05	3.83E-03	1.37E-03	0.017	0.391	1.0	250	25	70	9125	25550
Cobalt	4.79E-04	1.71E-04	6.55E-03	2.34E-03	0.049	0.669	1.0	250	25	70	9125	25550
Copper	3.28E-04	1.17E-04	5.57E-03	1.99E-03	0.034	0.569	1.0	250	25	70	9125	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	0.000	1.0	250	25	70	9125	25550
Iron	2.52E-01	8.99E-02	9.41E-01	3.36E-01	25.73	96.20	1.0	250	25	70	9125	25550
Lead	1.68E-04	6.01E-05	1.53E-03	5.45E-04	0.017	0.156	1.0	250	25	70	9125	25550
Magnesium	3.39E-01	1.21E-01	9.41E-01	3.36E-01	34.60	96.20	1.0	250	25	70	9125	25550
Manganese	2.24E-02	8.01E-03	1.13E-01	4.02E-02	2.29	11.50	1.0	250	25	70	9125	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Nickel	5.64E-04	2.01E-04	7.33E-03	2.62E-03	0.058	0.749	1.0	250	25	70	9125	25550
Potassium	2.32E-02	8.28E-03	1.25E-01	4.47E-02	2.37	12.80	1.0	250	25	70	9125	25550
Selenium	3.10E-05	1.11E-05	1.96E-04	6.99E-05	0.003	0.020	1.0	250	25	70	9125	25550
Silver	5.67E-05	2.03E-05	3.01E-04	1.08E-04	0.006	0.031	1.0	250	25	70	9125	25550
Sodium	1.29E-01	4.61E-02	2.71E-01	9.68E-02	13.19	27.70	1.0	250	25	70	9125	25550
Thallium	9.83E-05	3.51E-05	3.91E-04	1.40E-04	0.010	0.040	1.0	250	25	70	9125	25550
Vanadium	1.29E-04	4.62E-05	1.64E-03	5.87E-04	0.013	0.168	1.0	250	25	70	9125	25550
Zinc	1.42E-03	5.07E-04	1.42E-02	5.07E-03	0.14	1.45	1.0	250	25	70	9125	25550
VOLATILES												
1,1,1-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
1,3-Dichloropropane (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
1,3-Dichloropropane (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Carbon disulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Carbon Tetrachloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Tetrachloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
SEMIVOLATILES												
1,4-Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
2,4-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
2,4,5-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
2,4,6-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
2,6-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
3,3-Dichlorobenzidine	1.12E-04	4.01E-05	1.98E-04	6.99E-05	0.0115	0.0200	1.0	250	25	70	9125	25550
Acenaphthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Benzo(ghi)perylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Bis(2-chloroethyl)ether	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Chrysene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Di-n-butylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Fluorene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Hexachlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Hexachlorobutadiene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Hexachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Isophrone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Nitrobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
N-nitroso-di-n-propylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
N-nitrosodiphenylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Pentachlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Phenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
PESTICIDES												
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Aldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Deildrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Heptachlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550
Toxaphene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	1.0	250	25	70	9125	25550

TABLE D.3-
SCENARIO 3
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE (CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE (CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK	TOTAL RISK	
										1.1E-06	1.3E-04	MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										5.7E-07	2.9E-03	MAXIMUM
VOLATILES												
1,1,1-Trichloroethane	1.5E-06	5.2E-09	No	NA	D		IRIS	NA	NA			
1,1,2-Trichloroethane	1.5E-06	5.2E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	8.7E-10	3.0E-10			
1,1,2,2-Tetrachloroethane	1.5E-06	5.2E-09	No	2.00E-01	C	Hepatocellular carcinoma		3.1E-09	1.0E-09			
1,2-Dichloropropane	1.5E-06	5.2E-09	No	6.80E-02	B2	Liver		1.0E-09	3.6E-10			
1,3-Dichloropropane (cis)	1.5E-06	5.2E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		2.8E-09	9.4E-10			
1,3-Dichloropropane (trans)	1.5E-06	5.2E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		2.8E-09	9.4E-10			
Benzene	1.5E-06	5.2E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	4.5E-10	1.5E-10			
Bromodichloromethane	1.5E-06	5.2E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	2.0E-09	6.8E-10			
Bromoform	1.5E-06	5.2E-09	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	1.2E-10	4.1E-11			
Carbon disulfide	1.5E-06	2.2E-08	No	NA			NA/IRIS,HEAST	NA	NA			
Carbon Tetrachloride	1.5E-06	5.2E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	2.0E-09	6.8E-10			
Dibromochloromethane	1.5E-06	5.2E-09	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	1.3E-09	4.4E-10			
Styrene	1.5E-06	5.2E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	4.6E-10	1.6E-10			
Tetrachloroethene	1.4E-06	1.7E-09	No	0.05	B2	Liver	Gavage/HEAST	7.4E-10	8.9E-11			
Trichloroethene	1.5E-06	5.2E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	1.7E-10	5.8E-11			
SEMIVOLATILES												
1,4-Dichlorobenzene	6.5E-06	4.4E-08	No	2.40E-02	C	Liver	Gavage/HEAST	2.0E-09	1.0E-09			
2-Methylnaphthalene	7.0E-06	1.7E-08	No	NA			NA/IRIS,HEAST	NA	NA			
2,4-Dinitrotoluene	6.5E-06	4.4E-08	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	5.7E-08	3.0E-08			
2,4,5-Trichlorophenol	4.2E-07	2.2E-07	No	NA			NA/IRIS,HEAST	NA	NA			
2,4,6-Trichlorophenol	6.5E-06	4.4E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	9.3E-10	4.8E-10			
2,6-Dinitrotoluene	6.5E-06	4.4E-08	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	5.7E-08	3.0E-08			
3,3-Dichlorobenzidine	1.7E-07	8.7E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	7.6E-08	3.9E-08			
Acenaphthene	5.6E-06	6.6E-09	No	NA			NA/IRIS,HEAST	NA	NA			
Anthracene	6.5E-06	4.4E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Benzo(a)anthracene	3.8E-06	1.4E-08	No	NA	B2	Liver, lung, skin	IRIS	NA	NA			
Benzo(a)pyrene	3.2E-06	9.6E-09	No	NA	B2	Lung, stomach	IRIS	NA	NA			
Benzo(b)fluoranthene	6.0E-06	7.5E-09	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA			
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA			
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA			
Bis(2-chloroethyl)ether	8.5E-06	4.4E-08	No	1.10E+00	B2	Liver	Gavage/IRIS	9.3E-08	4.8E-08			
Bis(2ethylhexyl)phthalate	6.6E-06	5.9E-07	No	1.40E-02	B2	Liver	IRIS	1.2E-09	8.3E-09			
Butylbenzylphthalate	8.5E-06	4.4E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA			
Chrysene	3.9E-06	6.4E-07	No	NA	B2	Malignant lymphoma	IRIS	NA	NA			
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	NA	B2	Lung, mammary	IRIS	NA	NA			
Di-n-butylphthalate	4.4E-06	5.2E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluoranthene	5.2E-06	2.3E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluorene	7.0E-06	1.7E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Hexachlorobenzene	8.5E-06	4.4E-08	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	1.4E-07	7.0E-08			
Hexachlorobutadiene	8.5E-06	4.4E-08	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	6.6E-09	3.4E-09			
Hexachloroethane	8.5E-06	4.4E-08	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	1.2E-09	6.1E-10			
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	NA	B2	Lung, skin	IRIS	NA	NA			
Isophrone	8.5E-06	4.4E-08	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	3.5E-10	1.8E-10			
Naphthalene	8.5E-06	4.4E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Nitrobenzene	8.5E-06	4.4E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
N-nitroso-di-n-propylamine	8.5E-06	4.4E-08	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	5.9E-07	3.1E-07			
N-nitrosodiphenylamine	8.5E-06	4.4E-08	No	4.90E-03	B2		Diet/IRIS	4.1E-10	2.1E-10			
Pentachlorophenol	4.2E-07	2.2E-07	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochromo	Oral/IRIS	5.0E-08	2.6E-08			
Phenanthrene	4.4E-06	6.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA			
Phenol	4.4E-06	1.3E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Pyrene	6.6E-06	5.2E-07	No	NA	D		NA/IRIS,HEAST	NA	NA			
PESTICIDES												
4,4'-DDD	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA			
4,4'-DDE	3.9E-10	3.9E-10	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.3E-10	1.3E-10			
4,4'-DDT	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA			
Aldrin	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA			
Alpha-chlordane	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA			
Deildrin	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA			
Heptachlor	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA			
Toxaphene	1.8E-10	1.8E-10	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	2.0E-10	2.0E-10			

TABLE D.3-5
SCENARIO 3
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK
										7.6E-06 MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										2.4E-05 MAXIMUM
INORGANICS										
Aluminum	1.0E-03	2.1E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	
Antimony	7.3E-07	8.2E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Arsenic	8.0E-07	1.6E-06	No	1.75E+00	A	Skin	IRIS	1.4E-06	2.8E-06	
Barium	2.6E-06	5.7E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Beryllium	4.3E-06	9.1E-06	No	4.30E+00	B2	Gross tumors all sites combined	Water/IRIS	1.9E-07	3.9E-07	
Cadmium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Calcium	1.4E-04	1.8E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Chromium	1.2E-06	2.6E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Cobalt	1.6E-06	3.4E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Copper	2.4E-06	4.8E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Cyanide	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Iron	3.7E-03	7.2E-03	No	NA			NA/IRIS,HEAST	NA	NA	
Lead	9.7E-07	2.1E-06	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	
Magnesium	3.2E-04	4.6E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Manganese	5.3E-05	8.2E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	
Mercury	2.6E-06	4.2E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nickel	2.4E-06	4.8E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Potassium	5.0E-05	4.4E-05	No	NA			NA/IRIS,HEAST	NA	NA	
Selenium	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Silver	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Sodium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Thallium	1.3E-07	1.5E-07	No	NA			IRIS,HEAST	NA	NA	
Vanadium	1.7E-06	3.2E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Zinc	1.0E-05	1.8E-05	No	NA			NA/IRIS,HEAST	NA	NA	
VOLATILES										
1,1,1-Trichloroethane	3.1E-09	1.0E-09	No	NA	D		IRIS	NA	NA	
1,1,2-Trichloroethane	3.1E-09	1.0E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.7E-10	6.0E-11	
1,1,2,2-Tetrachloroethane	3.1E-09	1.0E-09	No	2.00E-01	C	Hepatocellular carcinoma		6.1E-10	2.1E-10	
1,2-Dichloropropane	3.1E-09	1.0E-09	No	6.80E-02	B2	Liver		2.1E-10	7.1E-11	
1,3-Dichloropropane (cis)	3.1E-09	1.0E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		5.5E-10	1.9E-10	
1,3-Dichloropropane (trans)	3.1E-09	1.0E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		5.5E-10	1.9E-10	
Benzene	3.1E-09	1.0E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	8.9E-11	3.0E-11	
Bromodichloromethane	3.1E-09	1.0E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	4.0E-10	1.4E-10	
Bromoform	3.1E-09	1.0E-09	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	2.4E-11	8.3E-12	
Carbon disulfide	3.1E-09	4.4E-09	No	NA			NA/IRIS,HEAST	NA	NA	
Carbon Tetrachloride	3.1E-09	1.0E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	4.0E-10	1.4E-10	
Dibromochloromethane	3.1E-09	1.0E-09	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	2.6E-10	8.8E-11	
Styrene	3.1E-09	1.0E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	9.2E-11	3.1E-11	
Tetrachloroethene	2.9E-09	3.5E-10	No	0.05	B2	Liver	Gavage/HEAST	1.5E-10	1.8E-11	
Trichloroethane	3.1E-09	1.0E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	3.4E-11	1.2E-11	
SEMIVOLATILES										
1,4-Dichlorobenzene	1.7E-07	8.7E-08	No	2.40E-02	C	Liver	Gavage/HEAST	4.1E-09	2.1E-09	
2-Methylnaphthalene	1.4E-07	3.3E-08	No	NA			NA/IRIS,HEAST	NA	NA	
2,4-Dinitrotoluene	1.7E-07	8.7E-08	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	1.1E-07	5.9E-08	
2,4,5-Trichlorophenol	8.4E-07	4.4E-07	No	NA			NA/IRIS,HEAST	NA	NA	
2,4,6-Trichlorophenol	1.7E-07	8.7E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	1.9E-09	9.6E-10	
2,6-Dinitrotoluene	1.7E-07	8.7E-08	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	1.1E-07	5.9E-08	
3,3-Dichlorobenzidine	3.4E-07	1.7E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.5E-07	7.9E-08	
Acenaphthene	1.2E-07	1.3E-08	No	NA			NA/IRIS,HEAST	NA	NA	
Anthracene	1.7E-07	8.7E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzo(a)anthracene	7.7E-08	2.6E-08	No	1.15E+01	B2	Liver, lung, skin	IRIS	8.8E-07	3.2E-07	
Benzo(a)pyrene	6.4E-08	1.9E-08	No	1.15E+01	B2	Lung, stomach	IRIS	7.3E-07	2.2E-07	
Benzo(b)fluoranthene	1.2E-07	1.5E-08	No	1.15E+01	B2	Lung, thorax, skin	IRIS	1.4E-06	1.7E-07	
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	NA	NA	
Bis(2-chloroethyl)ether	1.7E-07	8.7E-08	No	1.10E+00	B2	Liver	Gavage/IRIS	1.9E-07	9.6E-08	
Bis(2ethylhexyl)phthalate	1.7E-07	1.2E-08	No	1.40E-02	B2	Liver	IRIS	2.4E-09	1.7E-08	
Butylbenzylphthalate	1.7E-07	8.7E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA	
Chrysene	7.7E-08	1.7E-08	No	1.15E+01	B2	Malignant lymphoma	IRIS	8.9E-07	1.9E-06	
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	NA	NA	
Di-n-butylphthalate	8.8E-08	1.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluoranthene	1.0E-07	4.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluorene	1.4E-07	3.3E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Hexachlorobenzene	1.7E-07	8.7E-08	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	2.7E-07	1.4E-07	
Hexachlorobutadiene	1.7E-07	8.7E-08	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	1.3E-08	6.8E-09	
Hexachloroethane	1.7E-07	8.7E-08	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	2.4E-09	1.2E-09	
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	NA	NA	
Isophrone	1.7E-07	8.7E-08	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	6.9E-10	3.6E-10	
Naphthalene	1.7E-07	8.7E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nitrobenzene	1.7E-07	8.7E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
N-nitroso-di-n-propylamine	1.7E-07	8.7E-08	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	1.2E-06	6.1E-07	
N-nitrosodiphenylamine	5.1E-08	2.6E-08	No	4.90E-03	B2		Diet/IRIS	2.5E-10	1.3E-10	
Pentachlorophenol	2.5E-07	1.3E-07	No	1.20E-01	B2	Hepatocellular adenoma, carcinoma, pheochromoc	Oral/IRIS	3.0E-08	1.6E-08	
Phenanthrene	2.6E-08	3.8E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	
Phenol	2.6E-08	7.9E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	
Pyrene	4.0E-08	3.1E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	
PESTICIDES										
4,4'-DDD	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	
4,4'-DDE	2.4E-10	2.4E-10	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	8.0E-11	8.0E-11	
4,4'-DDT	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	
Aldrin	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	
Alpha-chlordane	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
Deildrin	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	
Heptachlor	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
Toxaphene	1.1E-10	1.1E-10	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	1.2E-10	1.2E-10	

TABLE D.3-6
SCENARIO 3
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAXIMUM	TOTAL PATHWAY RISK
										1.20E-04 MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER										2.9E-03 MAXIMUM
INORGANICS										
Aluminum	1.8E-02	8.8E-01	No	NA	D		NA/IRIS,HEAST	NA	NA	
Antimony	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Arsenic	4.9E-05	1.6E-03	No	1.75E+00	A	Skin	IRIS	8.5E-05	2.7E-03	
Barium	1.8E-04	2.4E-03	No	NA			NA/IRIS,HEAST	NA	NA	
Beryllium	4.0E-06	3.0E-05	No	4.30E+00	B2	Gross tumors all sites combined	Water/IRIS	1.7E-05	1.3E-04	
Cadmium	1.2E-05	3.0E-05	No	NA			NA/IRIS,HEAST	NA	NA	
Calcium	9.1E-02	3.0E-01	No	NA			NA/IRIS,HEAST	NA	NA	
Chromium	5.8E-05	1.4E-03	No	NA			NA/IRIS,HEAST	NA	NA	
Cobalt	1.7E-04	2.3E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	
Copper	1.2E-04	2.0E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	
Cyanide	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Iron	9.0E-02	3.4E-01	No	NA			NA/IRIS,HEAST	NA	NA	
Lead	8.0E-06	5.5E-04	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	
Magnesium	1.2E-01	3.4E-01	No	NA			NA/IRIS,HEAST	NA	NA	
Manganese	8.0E-03	4.0E-02	No	NA	D		NA/IRIS,HEAST	NA	NA	
Mercury	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nickel	2.0E-04	2.8E-03	No	NA			NA/IRIS,HEAST	NA	NA	
Potassium	8.3E-03	4.8E-02	No	NA			NA/IRIS,HEAST	NA	NA	
Selenium	1.1E-05	7.0E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	
Silver	2.0E-05	1.1E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	
Sodium	4.6E-02	9.7E-02	No	NA			NA/IRIS,HEAST	NA	NA	
Thallium	3.5E-05	1.4E-04	No	NA			IRIS,HEAST	NA	NA	
Vanadium	4.6E-05	5.9E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Zinc	5.1E-04	5.1E-03	No	NA			NA/IRIS,HEAST	NA	NA	
VOLATILES										
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma		NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver		NA	NA	
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		NA	NA	
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		NA	NA	
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
Bromoform	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Carbon Tetrachloride	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	NA	NA	
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA	
Tetrachloroethene	0.0E+00	0.0E+00	No	0.05	B2	Liver	Gavage/HEAST	NA	NA	
Trichloroethene	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA	
SEMIVOLATILES										
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/HEAST	NA	NA	
2-Methylnaphthalene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
2,4-Dinitrotoluene	0.0E+00	0.0E+00	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	NA	NA	
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	No	1.10E-02	B2	Leukemia	Diet/IRIS	NA	NA	
2,6-Dinitrotoluene	0.0E+00	0.0E+00	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	NA	NA	
3,3-Dichlorobenzidine	4.0E-06	7.0E-06	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.8E-06	3.1E-06	
Acenaphthene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Anthracene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzo(a)anthracene	0.0E+00	0.0E+00	No	1.15E+01	B2	Liver, lung, skin	IRIS	NA	NA	
Benzo(a)pyrene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, stomach	IRIS	NA	NA	
Benzo(b)fluoranthene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	NA	NA	
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	NA	NA	
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	No	1.10E+00	B2	Liver	Gavage/IRIS	NA	NA	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	NA	NA	
Butylbenzylphthalate	0.0E+00	0.0E+00	No	NA	C	Leukemia	Diet/IRIS	NA	NA	
Chrysene	0.0E+00	0.0E+00	No	1.15E+01	B2	Malignant lymphoma	IRIS	NA	NA	
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	NA	NA	
Di-n-butylphthalate	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluoranthene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluorene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Hexachlorobenzene	0.0E+00	0.0E+00	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	NA	NA	
Hexachlorobutadiene	0.0E+00	0.0E+00	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	NA	NA	
Hexachloroethane	0.0E+00	0.0E+00	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	NA	NA	
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	NA	NA	
Isophrone	0.0E+00	0.0E+00	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	NA	NA	
Naphthalene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nitrobenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	NA	NA	
N-nitrosodiphenylamine	0.0E+00	0.0E+00	No	4.90E-03	B2		Diet/IRIS	NA	NA	
Pentachlorophenol	0.0E+00	0.0E+00	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochromoc	Oral/IRIS	NA	NA	
Phenanthrene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Phenol	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Pyrene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
PESTICIDES										
4,4'-DDD	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	
4,4'-DDE	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
4,4'-DDT	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	
Aldrin	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	
Alpha-chlordane	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
Deildrin	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	
Heptachlor	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	
Toxaphene	0.0E+00	0.0E+00	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS	NA	NA	

TABLE 0.3-7
SCENARIO 3
CHRONIC HAZRD INDEX RATIOS
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFD. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)	TOTAL HAZARD INDEX (HI)
												1.8E-03	1.9E+00 MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												2.0E-03	1.3E+01 MAXIMUM
VOLATILES													
1,1,1-Trichloroethane	4.3E-08	1.5E-06	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	4.8E-07	1.6E-07		
1,1,2-Trichloroethane	4.3E-08	1.5E-06	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	1.1E-05	3.7E-06		
1,1,2,2-Tetrachloroethane	4.3E-08	1.5E-06	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloropropane	4.3E-08	1.5E-06	No	NA			NA/HEAST			NA	NA		
1,3-Dichloropropene (cis)	4.3E-08	1.5E-06	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	1.4E-04	4.9E-06		
1,3-Dichloropropene (trans)	4.3E-08	1.5E-06	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	1.4E-04	4.9E-06		
Benzene	4.3E-08	1.5E-06	No	NA			NA/IRIS,HEAST			NA	NA		
Bromodichloromethane	4.3E-08	1.5E-06	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	2.1E-06	7.3E-07		
Bromoform	4.3E-08	1.5E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	2.1E-06	7.3E-07		
Carbon disulfide	4.3E-08	6.1E-06	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	4.3E-07	6.1E-07		
Carbon Tetrachloride	4.3E-08	1.5E-06	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	6.1E-05	2.1E-05		
Dibromochloromethane	4.3E-08	1.5E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	2.1E-06	7.3E-07		
Styrene	4.3E-08	1.5E-06	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	2.1E-07	7.3E-08		
Tetrachloroethene	4.0E-08	4.9E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	4.0E-06	4.9E-07		
Trichloroethene	4.3E-08	1.5E-06	No	NA			NA/IRIS,HEAST			NA	NA		
SEMIVOLATILES													
1,4-Dichlorobenzene	2.4E-07	1.2E-07	No	NA			NA/IRIS,HEAST			NA	NA		
2-Methylnaphthalene	2.0E-07	4.9E-08	No	4E-03			NA/IRIS,HEAST			4.9E-06	1.8E-06		
2,4-Dinitrotoluene	2.4E-07	1.2E-07	No	NA			NA/IRIS,HEAST			NA	NA		
2,4,5-Trichlorophenol	1.2E-06	6.1E-07	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	1.2E-06	6.1E-06		
2,4,6-Trichlorophenol	2.4E-07	1.2E-07	No	NA			NA/IRIS,HEAST			NA	NA		
2,6-Dinitrotoluene	2.4E-07	1.2E-07	No	NA			NA/HEAST			NA	NA		
3,3-Dichlorobenzidine	4.7E-07	2.4E-07	No	NA			NA/IRIS,HEAST			NA	NA		
Acenaphthene	1.6E-07	1.9E-06	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	UF=3000	MF=1	2.7E-06	3.1E-07		
Anthracene	2.4E-07	1.2E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	UF=3000	MF=1	7.9E-07	4.1E-07		
Benzo(a)anthracene	1.1E-07	3.9E-08	No	4E-03			NA/IRIS,HEAST			2.7E-06	9.8E-06		
Benzo(a)pyrene	8.9E-08	2.7E-06	No	4E-03			NA/IRIS,HEAST			2.2E-06	6.7E-06		
Benzo(b)fluoranthene	1.7E-07	2.1E-06	No	4E-03			NA/IRIS,HEAST			4.2E-06	5.3E-06		
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Bis(2-chloroethyl)ether	2.4E-07	1.2E-07	No	NA			NA/IRIS,HEAST			NA	NA		
Bis (2-ethylhexyl)phthalate	2.4E-07	1.7E-06	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	1.2E-06	8.3E-06		
Butylbenzylphthalate	2.4E-07	1.2E-07	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	1.2E-06	6.1E-07		
Chrysene	1.1E-07	2.3E-06	No	4E-03			NA/HEAST			2.7E-06	5.9E-04		
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Di-n-butylphthalate	1.2E-07	1.5E-06	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	1.2E-06	1.5E-07		
Fluoranthene	1.4E-07	6.4E-06	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	3.6E-06	1.6E-06		
Fluorene	2.0E-07	4.9E-06	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	4.9E-06	1.2E-06		
Hexachlorobenzene	2.4E-07	1.2E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	3.0E-04	1.5E-04		
Hexachlorobutadiene	2.4E-07	1.2E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	1.2E-04	6.1E-05		
Hexachloroethane	2.4E-07	1.2E-07	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	2.4E-04	1.2E-04		
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Isophrone	2.4E-07	1.2E-07	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	1.2E-06	6.1E-07		
Naphthalene	2.4E-07	1.2E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		5.9E-05	3.1E-05		
Nitrobenzene	2.4E-07	1.2E-07	No	6E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS,HEAS	UF=10,000		4.7E-04	2.4E-04		
N-nitroso-di-n-propylamine	2.4E-07	1.2E-07	No	NA			NA/IRIS,HEAST			NA	NA		
N-nitrosodiphenylamine	2.4E-07	1.2E-07	No	NA			NA/HEAST			NA	NA		
Pentachlorophenol	1.2E-06	6.1E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	3.9E-05	2.0E-05		
Phenanthrene	1.2E-07	1.5E-06	No	4E-03			NA/HEAST			3.0E-06	4.6E-04		
Phenol	1.2E-07	9.7E-09	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	2.0E-07	6.1E-08		
Pyrene	1.6E-07	1.5E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	6.2E-06	4.9E-05		
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	No	NA						NA	NA		
4,4'-DDE	1.1E-09	1.1E-09	No	NA						NA	NA		
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA		
Aldrin	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA		
Alpha-chlordane	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA		
Dieldrin	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA		
Heptachlor	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA		
Toxaphene	5.1E-10	5.1E-10	No	NA			NA/IRIS,HEAST			NA	NA		

TABLE D.3-8
SCENARIO 3
CHRONIC HAZRD INDEX RATIOS
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFD. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												1.9E-02 MEAN 2.5E-02 MAXIMUM
INORGANICS												
Aluminum	2.8E-03	6.0E-03	No	NA			NA/HEAST			NA	NA	
Antimony	2.1E-06	2.3E-06	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST	UF=1000	MF=1	5.1E-03	5.7E-03	
Arsenic	2.3E-06	4.2E-06	No	1E-03		Keratosis and hyperpigmentation	NA/HEAST	UF=1		2.3E-03	4.2E-03	
Barium	7.3E-06	1.6E-05	No	7E-02	Medium	None Observed	Water/IRIS	UF=3	MF=1	1.0E-04	2.3E-04	
Beryllium	1.2E-07	2.6E-07	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=100	MF=1	2.4E-05	5.1E-05	
Cadmium	0.0E+00	0.0E+00	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	UF=10	MF=1	NA	NA	
Calcium	3.9E-04	8.0E-04	No	NA			NA/IRIS,HEAST			NA	NA	
Chromium	3.3E-06	7.4E-06	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=500	MF=1	6.6E-04	1.5E-03	
Cobalt	4.6E-06	9.4E-06	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	6.7E-06	1.3E-05	No	4E-02		Local GI irritation	NA/HEAST			1.7E-04	3.2E-04	
Cyanide	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss,thyroid effects,myelin degeneration	Diet/IRIS	UF=100	MF=5	NA	NA	
Iron	1.0E-02	2.0E-02	No	NA			NA/HEAST			NA	NA	
Lead	2.7E-06	5.9E-06	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Magnesium	8.8E-04	1.3E-03	No	NA			NA/IRIS,HEAST			NA	NA	
Manganese	1.5E-04	2.3E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	UF=1	MF=1	1.5E-03	2.3E-03	
Mercury	8.2E-08	1.2E-07	No	3E-04		Kidney effects	Oral/HEAST	UF=1000		2.7E-04	3.9E-04	
Nickel	6.6E-06	1.3E-05	No	NA			NA/IRIS,HEAST			NA	NA	
Potassium	1.4E-04	1.2E-04	No	NA			NA/IRIS,HEAST			NA	NA	
Selenium	0.0E+00	0.0E+00	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	UF=3	MF=1	NA	NA	
Silver	0.0E+00	0.0E+00	No	3E-03	Medium	Argyria	Oral/IRIS,HEAST	UF=2	MF=1	NA	NA	
Sodium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Thallium	3.6E-07	4.3E-07	No	7E-05		Increased SGOT and serum LDH levels, alopecia	Diet/HEAST	UF=3000		5.1E-03	6.2E-03	
Vanadium	4.8E-06	8.9E-06	No	7E-03		None Observed	Water/HEAST	UF=100		6.8E-04	1.3E-03	
Zinc	2.9E-05	4.1E-05	No	2E-01		Anemia	Therapeutic/HEAST	UF=10		1.5E-04	2.0E-04	
VOLATILES												
1,1,1-Trichloroethane	8.6E-09	2.9E-09	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	9.6E-06	3.3E-06	
1,1,2-Trichloroethane	8.6E-09	2.9E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	2.1E-06	7.3E-07	
1,1,2,2-Tetrachloroethane	8.6E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloropropane	8.6E-09	2.9E-09	No	NA			NA/HEAST			NA	NA	
1,3-Dichloropropene (cis)	8.6E-09	2.9E-09	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	2.9E-05	9.6E-06	
1,3-Dichloropropene (trans)	8.6E-09	2.9E-09	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	2.9E-05	9.6E-06	
Benzene	8.6E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Bromodichloromethane	8.6E-09	2.9E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	4.3E-07	1.5E-07	
Bromoform	8.6E-09	2.9E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	4.3E-07	1.5E-07	
Carbon disulfide	8.6E-09	1.2E-08	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	8.6E-08	1.2E-07	
Carbon Tetrachloride	8.6E-09	2.9E-09	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	1.2E-05	4.2E-06	
Dibromochloromethane	8.6E-09	2.9E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	4.3E-07	1.5E-07	
Styrene	8.6E-09	2.9E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	4.3E-08	1.5E-08	
Tetrachloroethene	8.1E-09	9.8E-10	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	8.1E-07	9.8E-08	
Trichloroethene	8.6E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	
SEMIVOLATILES												
1,4-Dichlorobenzene	4.7E-07	2.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	
2-Methylnaphthalene	3.9E-07	9.3E-08	No	4E-03			NA/IRIS,HEAST			9.8E-05	2.3E-05	
2,4-Dinitrotoluene	4.7E-07	2.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	
2,4,5-Trichlorophenol	2.3E-08	1.2E-08	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	2.3E-05	1.2E-05	
2,4,6-Trichlorophenol	4.7E-07	2.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	
2,6-Dinitrotoluene	4.7E-07	2.4E-07	No	NA			NA/HEAST			NA	NA	
3,3-Dichlorobenzidine	9.4E-07	4.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	
Acenaphthene	3.2E-07	3.7E-08	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	UF=3000	MF=1	5.4E-06	6.2E-07	
Anthracene	4.7E-07	2.4E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	UF=3000	MF=1	1.6E-06	8.2E-07	
Benzo(a)anthracene	2.2E-07	7.8E-06	No	4E-03			NA/IRIS,HEAST			5.4E-06	2.0E-05	
Benzo(a)pyrene	1.8E-07	5.4E-06	No	4E-03			NA/IRIS,HEAST			4.5E-06	1.3E-05	
Benzo(b)fluoranthene	3.4E-07	4.2E-06	No	4E-03			NA/IRIS,HEAST			8.4E-05	1.1E-05	
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Bis(2-chloroethyl)ether	4.7E-07	2.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	
Bis(2ethylhexyl)phthalate	4.6E-07	3.3E-06	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	2.4E-05	1.7E-04	
Butylbenzylphthalate	4.7E-07	2.4E-07	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	2.4E-06	1.2E-06	
Chrysene	2.2E-07	4.7E-06	No	4E-03			NA/HEAST			5.4E-05	1.2E-03	
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Di-n-butylphthalate	2.5E-07	2.9E-08	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	2.5E-06	2.9E-07	
Fluoranthene	2.9E-07	1.3E-07	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	7.2E-06	3.2E-06	
Fluorene	3.9E-07	9.3E-08	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	9.8E-06	2.3E-06	
Hexachlorobenzene	4.7E-07	2.4E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	5.9E-04	3.1E-04	
Hexachlorobutadiene	4.7E-07	2.4E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	2.4E-04	1.2E-04	
Hexachloroethene	4.7E-07	2.4E-07	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	4.7E-04	2.4E-04	
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Isophrone	4.7E-07	2.4E-07	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	2.4E-06	1.2E-06	
Naphthalene	4.7E-07	2.4E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		1.2E-04	6.1E-05	
Nitrobenzene	4.7E-07	2.4E-07	No	5E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS,HEAS	UF=10,000		9.5E-04	4.9E-04	
N-nitroso-di-n-propylamine	4.7E-07	2.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	
N-nitrosodiphenylamine	1.4E-07	7.3E-08	No	NA			NA/HEAST			NA	NA	
Pentachlorophenol	7.0E-07	3.7E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	2.3E-05	1.2E-05	
Phenanthrene	7.3E-08	1.1E-08	No	4E-03			NA/HEAST			1.8E-06	2.7E-04	
Phenol	7.3E-08	2.2E-08	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	1.2E-07	3.7E-08	
Pyrene	1.1E-07	8.8E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	3.7E-06	2.9E-05	
PESTICIDES												
4,4'-DDD	0.0E+00	0.0E+00	No	NA						NA	NA	
4,4'-DDE	6.6E-10	6.6E-10	No	NA						NA	NA	
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	
Aldrin	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	
Alpha-chlordane	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	
Deildrin	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	
Heptachlor	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	
Toxaphene	3.1E-10	3.1E-10	No	NA			NA/IRIS,HEAST			NA	NA	

TABLE D.3-9
SCENARIO 3
CHRONIC HAZRD INDEX RATIOS
TANK FARM FOUR

COMPOUND NAME	CHRONIC DAILY INTAKE(CDI) MEAN (mg/kg/day)	CHRONIC DAILY INTAKE(CDI) MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFD. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAXIMUM	PATHWAY HAZARD INDEX (HI)
												1.9E+00 MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER												1.3E+01 MAXIMUM
INORGANICS												
Aluminum	4.9E-02	2.5E+00	No	NA			NA/HEAST			NA	NA	
Antimony	0.0E+00	0.0E+00	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST	UF=1000	MF=1	NA	NA	
Arsenic	1.4E-04	4.4E-03	No	1E-03		Keratosis and hyperpigmentation	NA/HEAST	UF=1		1.4E-01	4.4E+00	
Barium	4.9E-04	6.6E-03	No	7E-02	Medium	None Observed	Water/IRIS	UF=3	MF=1	7.1E-03	9.4E-02	
Beryllium	1.1E-05	8.3E-05	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=100	MF=1	2.2E-03	1.7E-02	
Cadmium	3.5E-05	8.3E-05	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	UF=10	MF=1	3.5E-02	8.3E-02	
Calcium	2.6E-01	6.5E-01	No	NA			NA/IRIS,HEAST			NA	NA	
Chromium	1.6E-04	3.8E-03	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=500	MF=1	3.2E-02	7.7E-01	
Cobalt	4.8E-04	6.5E-03	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	3.3E-04	5.6E-03	No	4E-02		Local GI irritation	NA/HEAST			8.2E-03	1.4E-01	
Cyanide	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss,thyroid effects,myelin degeneration	Diet/IRIS	UF=100	MF=5	NA	NA	
Iron	2.5E-01	9.4E-01	No	NA			NA/HEAST			NA	NA	
Lead	1.7E-04	1.5E-03	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Magnesium	3.4E-01	9.4E-01	No	NA			NA/IRIS,HEAST			NA	NA	
Manganese	2.2E-02	1.1E-01	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	UF=1	MF=1	2.2E-01	1.1E+00	
Mercury	0.0E+00	0.0E+00	No	3E-04		Kidney effects	Oral/HEAST	UF=1000		NA	NA	
Nickel	5.6E-04	7.3E-03	No	NA			NA/IRIS,HEAST			NA	NA	
Potassium	2.3E-02	1.3E-01	No	NA			NA/IRIS,HEAST			NA	NA	
Selenium	3.1E-05	2.0E-04	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	UF=3	MF=1	6.2E-03	3.9E-02	
Silver	5.7E-05	3.0E-04	No	3E-03	Medium	Argyria	Oral/IRIS/HEAST	UF=2	MF=1	1.9E-02	1.0E-01	
Sodium	1.3E-01	2.7E-01	No	NA			NA/IRIS,HEAST			NA	NA	
Thallium	9.8E-05	3.9E-04	No	7E-05		Increased SGOT and serum LDH levels, alopecia	Diet/HEAST	UF=3000		1.4E+00	5.6E+00	
Vanadium	1.3E-04	1.8E-03	No	7E-03		None Observed	Water/HEAST	UF=100		1.8E-02	2.3E-01	
Zinc	1.4E-03	1.4E-02	No	2E-01		Anemia	Therapeutic/HEAST	UF=10		7.1E-03	7.1E-02	
VOLATILES												
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	NA	NA	
1,1,2-Trichloroethene	0.0E+00	0.0E+00	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA	
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA	
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	NA	NA	
Bromoform	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	
Carbon disulfide	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	NA	NA	
Carbon Tetrachloride	0.0E+00	0.0E+00	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	NA	NA	
Tetrachloroethene	0.0E+00	0.0E+00	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	NA	NA	
Trichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
SEMIVOLATILES												
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
2-Methylnaphthalene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
2,4-Dinitrotoluene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	NA	NA	
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
2,6-Dinitrotoluene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
3,3-Dichlorobenzidine	1.1E-04	2.0E-04	No	NA			NA/IRIS,HEAST			NA	NA	
Acenaphthene	0.0E+00	0.0E+00	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	UF=3000	MF=1	NA	NA	
Anthracene	0.0E+00	0.0E+00	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	UF=3000	MF=1	NA	NA	
Benzo(a)anthracene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Benzo(a)pyrene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Benzo(b)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Benzo(ghi)perylene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	NA	NA	
Butylbenzylphthalate	0.0E+00	0.0E+00	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	NA	NA	
Chrysene	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA	
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Di-n-butylphthalate	0.0E+00	0.0E+00	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	NA	NA	
Fluoranthene	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	NA	NA	
Fluorene	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	NA	NA	
Hexachlorobenzene	0.0E+00	0.0E+00	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	NA	NA	
Hexachlorobutadiene	0.0E+00	0.0E+00	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	NA	NA	
Hexachloroethane	0.0E+00	0.0E+00	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	NA	NA	
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	
Isophrone	0.0E+00	0.0E+00	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	NA	NA	
Naphthalene	0.0E+00	0.0E+00	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		NA	NA	
Nitrobenzene	0.0E+00	0.0E+00	No	6E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS,HEAS	UF=10,000		NA	NA	
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
N-nitrosodiphenylamine	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Pentachlorophenol	0.0E+00	0.0E+00	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	NA	NA	
Phenanthrene	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA	
Phenol	0.0E+00	0.0E+00	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	NA	NA	
Pyrene	0.0E+00	0.0E+00	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	NA	NA	
PESTICIDES												
4,4'-DDD	0.0E+00	0.0E+00	No	NA						NA	NA	
4,4'-DDE	0.0E+00	0.0E+00	No	NA						NA	NA	
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	
Aldrin	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	
Alpha-chlordane	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	
Dieldrin	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	
Heptachlor	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	
Toxaphene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	

TABLE D.4-1
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX (mg/liter)	IR CHILD (liter/day)	IR ADULT (liter/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																				
Aluminum	2.52E-01	1.36E-01	1.25E+01	6.88E+00	2.16E-02	5.91E-02	1.06E+00	2.95E+00	5.04	251.00	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Arsenic	6.96E-04	3.81E-04	2.24E-02	1.23E-02	5.97E-05	1.63E-04	1.92E-03	5.26E-03	0.01	0.45	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Barium	2.53E-03	1.38E-03	3.38E-02	1.85E-02	2.16E-04	5.93E-04	2.90E-03	7.94E-03	0.05	0.68	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Beryllium	5.68E-05	3.11E-05	4.25E-04	2.33E-04	4.87E-06	1.33E-05	3.64E-05	9.98E-05	0.001	0.009	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cadmium	1.78E-04	9.74E-05	4.25E-04	2.33E-04	1.52E-05	4.18E-05	3.64E-05	9.98E-05	0.004	0.009	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Calcium	1.31E+00	7.16E-01	4.33E+00	2.37E+00	1.12E-01	3.07E-01	3.71E-01	1.02E+00	26.13	86.60	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chromium	8.26E-04	4.53E-04	1.95E-02	1.07E-02	7.09E-05	1.94E-04	1.68E-03	4.59E-03	0.02	0.39	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cobalt	2.45E-03	1.34E-03	3.34E-02	1.83E-02	2.10E-04	5.75E-04	2.87E-03	7.86E-03	0.05	0.67	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Copper	1.68E-03	9.19E-04	2.84E-02	1.56E-02	1.44E-04	3.94E-04	2.44E-03	6.68E-03	0.03	0.57	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cyanide	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00*	*0.00*	*0.756*	*2.0*	*350*	*6*	*30*	*14.5*	*70*	*2190*	*10950*	*25550*
Iron	1.29E+00	7.05E-01	4.81E+00	2.64E+00	1.10E-01	3.02E-01	4.12E-01	1.13E+00	25.73	96.20	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Lead	8.60E-04	4.71E-04	7.80E-03	4.27E-03	7.37E-05	2.02E-04	6.69E-04	1.83E-03	0.02	0.16	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Magnesium	1.73E+00	9.48E-01	4.81E+00	2.64E+00	1.48E-01	4.06E-01	4.12E-01	1.13E+00	34.60	96.20	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Manganese	1.15E-01	6.28E-02	5.75E-01	3.15E-01	9.82E-03	2.69E-02	4.93E-02	1.35E-01	2.29	11.50	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Nickel	2.68E-03	1.58E-03	3.74E-02	2.05E-02	2.47E-04	6.76E-04	3.21E-03	8.79E-03	0.06	0.75	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Potassium	1.18E-01	6.49E-02	6.40E-01	3.51E-01	1.02E-02	2.78E-02	5.49E-02	1.50E-01	2.37	12.80	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Selenium	1.58E-04	8.68E-05	1.00E-03	5.48E-04	1.36E-05	3.72E-05	8.57E-05	2.35E-04	0.003	0.020	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Silver	2.90E-04	1.59E-04	1.54E-03	8.44E-04	2.48E-05	6.81E-05	1.32E-04	3.62E-04	0.01	0.03	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Sodium	6.59E-01	3.61E-01	1.38E+00	7.59E-01	5.65E-02	1.55E-01	1.19E-01	3.25E-01	13.19	27.70	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Thallium	5.02E-04	2.75E-04	2.00E-03	1.10E-03	4.31E-05	1.18E-04	1.71E-04	4.70E-04	0.01	0.04	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Vanadium	6.81E-04	3.62E-04	8.40E-03	4.60E-03	5.67E-05	1.55E-04	7.20E-04	1.97E-03	0.01	0.17	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Zinc	7.25E-03	3.97E-03	7.25E-02	3.97E-02	6.21E-04	1.70E-03	6.21E-03	1.70E-02	0.14	1.45	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
VOLATILES																				
1,1,1-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Carbon disulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE D.4-1 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX (mg/liter)	IR CHILD (liter/day)	IR ADULT (liter/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																				
1,4-Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	5.74E-04	3.15E-04	1.00E-03	5.48E-04	4.92E-05	1.35E-04	8.57E-05	2.35E-04	0.011	0.020	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Acenaphthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chrysene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Fluorene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Hexachlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Hexachlorobutadiene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Hexachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Isophrone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Nitrobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Pentachlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Phenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																				
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Aldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Dieldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Heptachlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Toxaphene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE D.4-2
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
TANK FARM FOUR

COMPOUND NAME	INTAKE CHLD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHLD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHLD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHLD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CONVERSION FACTOR kg to mg	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unitless)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																						
Aluminum	7.7E-02	8.0E-03	1.6E-01	1.7E-02	6.6E-03	3.4E-03	1.4E-02	7.2E-03	5816.08	12200.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Antimony	5.6E-06	5.8E-06	6.2E-05	6.4E-06	4.8E-06	2.5E-06	5.3E-06	2.6E-06	4.20	4.70	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	6.1E-05	6.3E-06	1.1E-04	1.2E-05	5.2E-06	2.7E-06	9.6E-06	5.0E-06	4.60	8.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Barium	2.0E-04	2.1E-05	4.3E-04	4.5E-05	1.7E-05	8.8E-06	3.7E-05	1.9E-05	15.01	32.60	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	3.3E-06	3.4E-07	6.9E-06	7.1E-07	2.8E-07	1.4E-07	5.9E-07	3.1E-07	0.25	0.52	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Calcium	1.1E-02	1.1E-03	1.4E-02	1.4E-03	9.1E-04	4.7E-04	1.2E-03	6.0E-04	799.36	1030.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	9.0E-05	9.3E-06	2.0E-04	2.1E-05	7.7E-06	4.0E-06	1.7E-05	8.9E-06	6.79	15.10	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	1.2E-04	1.3E-05	2.6E-04	2.6E-05	1.1E-05	5.5E-06	2.2E-05	1.1E-05	9.36	19.30	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	9.1E-05	9.6E-06	0.0E+00	0.0E+00	7.6E-06	2.4E-06	0.0E+00	0.0E+00	13.71	25.80	200	100	1.0E-06	350	6	30	a	14.5	70	2190	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Iron	2.8E-01	2.9E-02	5.4E-01	5.6E-02	2.4E-02	1.2E-02	4.7E-02	2.4E-02	20929.72	41100.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	2.4E-04	2.5E-05	5.3E-04	5.5E-05	2.1E-05	1.1E-05	4.5E-05	2.3E-05	18.43	40.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Magnesium	2.4E-02	2.5E-03	3.5E-02	3.6E-03	2.0E-03	1.1E-03	3.0E-03	1.5E-03	1804.31	2610.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Manganese	4.0E-03	4.1E-04	6.2E-03	6.5E-04	3.4E-04	1.8E-04	5.3E-04	2.6E-04	300.65	471.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	2.2E-06	2.3E-07	3.2E-06	3.3E-07	1.9E-07	9.8E-08	2.7E-07	1.4E-07	0.17	0.24	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	1.8E-04	1.9E-05	3.6E-04	3.7E-05	1.5E-05	7.9E-06	3.1E-05	1.6E-05	13.53	27.20	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Potassium	3.8E-03	3.9E-04	3.3E-03	3.5E-04	3.2E-04	1.7E-04	2.9E-04	1.5E-04	283.56	253.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Thallium	9.7E-06	1.0E-06	1.2E-05	1.2E-06	8.3E-07	4.3E-07	1.0E-06	5.2E-07	0.73	0.86	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Vanadium	1.3E-04	1.3E-05	2.4E-04	2.5E-05	1.1E-05	5.7E-06	2.1E-05	1.1E-05	9.78	18.10	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	7.9E-04	8.2E-05	1.1E-03	1.1E-04	6.7E-05	3.5E-05	9.5E-05	4.9E-05	59.52	83.40	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																						
1,1,1-Trichloroethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloropropane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropene (cis)	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropene (trans)	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bromodichloromethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bromoform	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon disulfide	2.3E-07	2.4E-08	3.3E-07	3.4E-08	2.0E-08	1.0E-08	2.8E-08	1.5E-08	0.018	0.025	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon Tetrachloride	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibromochloromethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	2.2E-07	2.3E-08	2.6E-08	2.7E-09	1.9E-08	9.7E-09	2.3E-08	1.2E-08	0.017	0.002	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Trichloroethene	2.3E-07	2.4E-08	7.9E-08	8.2E-09	2.0E-08	1.0E-08	6.8E-09	3.5E-09	0.018	0.008	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE D.4–2 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CONVERSION FACTOR kg to mg	EF (days/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unitless)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																						
1,4-Dichlorobenzene	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2-Methylnaphthalene	1.1E-06	1.1E-06	2.6E-06	2.6E-07	9.0E-07	4.7E-07	2.2E-07	1.1E-07	0.80	0.19	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	6.5E-06	6.6E-06	3.2E-05	3.3E-06	5.4E-06	2.8E-06	2.8E-06	1.5E-06	4.80	2.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	2.6E-06	2.6E-06	1.3E-05	1.4E-06	2.2E-06	1.1E-06	1.1E-06	5.6E-07	1.93	1.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthene	8.6E-06	9.1E-07	1.0E-05	1.0E-07	7.5E-07	3.9E-07	8.6E-06	4.5E-06	0.66	0.06	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	9.6E-06	1.0E-06	1.7E-05	1.8E-07	8.4E-07	4.3E-07	1.6E-07	7.8E-06	0.74	0.13	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	5.6E-06	6.0E-07	2.1E-05	2.2E-07	5.0E-07	2.6E-07	1.6E-07	9.4E-06	0.44	0.16	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	4.6E-06	5.0E-07	1.8E-05	1.9E-07	4.1E-07	2.1E-07	1.2E-07	6.5E-06	0.36	0.11	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	9.1E-06	9.4E-07	1.1E-05	1.2E-07	7.8E-07	4.0E-07	9.7E-08	5.0E-06	0.69	0.09	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	1.3E-06	1.4E-06	9.0E-06	9.3E-06	1.1E-06	5.6E-07	7.7E-06	4.0E-06	0.99	6.80	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	8.6E-06	8.0E-07	1.3E-04	1.3E-06	8.0E-07	2.6E-07	1.1E-05	5.6E-06	0.44	9.60	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	6.7E-06	6.9E-07	7.9E-07	8.2E-06	5.7E-07	3.0E-07	6.6E-06	3.5E-06	0.51	0.06	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	7.6E-06	8.1E-07	3.4E-06	3.6E-07	6.7E-07	3.5E-07	2.9E-07	1.5E-07	0.59	0.26	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	1.1E-06	1.1E-06	2.5E-06	2.6E-07	9.0E-07	4.7E-07	2.2E-07	1.1E-07	0.80	0.19	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobenzene	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobutadiene	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachloroethane	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Isophrone	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Nitrobenzene	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	1.3E-06	1.3E-06	6.4E-06	6.6E-07	1.1E-06	5.7E-07	5.7E-07	2.8E-07	0.97	0.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Pentachlorophenol	6.5E-06	6.6E-06	3.2E-05	3.4E-06	5.4E-06	2.8E-06	2.8E-06	1.5E-06	4.80	2.50	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	6.6E-06	6.8E-07	9.7E-06	1.0E-05	5.6E-07	2.9E-07	6.3E-06	4.3E-06	0.50	7.30	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Phenol	6.6E-06	6.8E-07	2.0E-06	2.1E-07	5.7E-07	2.9E-07	1.7E-07	8.8E-06	0.50	0.15	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	1.0E-05	1.0E-06	7.8E-06	8.2E-06	8.6E-07	4.4E-07	6.6E-06	3.5E-06	0.75	6.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																						
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDE	8.0E-06	8.2E-06	8.0E-06	8.2E-06	5.1E-06	2.6E-06	5.1E-06	2.6E-06	0.0045	0.0045	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Toxaphene	2.6E-06	2.6E-06	2.6E-06	2.6E-06	2.4E-06	1.2E-06	2.4E-06	1.2E-06	0.0021	0.0021	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE D.4-3
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE ADULT CANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MAX (mg/kg/day)	ABS DOSE ADULT CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR kg to mg	SCR (mg/day)	RAF (unitless)	EF (day/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																					
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5814.05	12200.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.20	4.70	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.60	8.50	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	15.01	32.60	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.25	0.62	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	796.36	1030.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.79	18.10	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.36	19.30	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.71	25.60	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20929.72	41100.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.43	40.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1604.31	2610.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	300.65	471.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.17	0.24	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.83	27.20	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	263.56	283.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.73	0.88	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.76	18.10	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
									59.52	83.40	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
VOLATILES																					
1,1,1-Trichloroethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene (cis)	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene (trans)	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Benzene	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Bromoform	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Carbon disulfide	2.9E-07	6.0E-08	4.1E-07	8.6E-08	2.5E-08	2.6E-08	3.5E-08	3.7E-08	0.018	0.025	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Styrene	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	2.7E-07	5.7E-08	3.2E-08	6.8E-09	2.3E-08	2.4E-08	2.8E-09	2.9E-09	0.017	0.002	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	2.9E-07	6.0E-08	9.9E-08	2.1E-08	2.5E-08	2.6E-08	8.5E-09	8.9E-09	0.018	0.006	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550

TABLE D.4-3 (cont.)
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FOUR

COMPOUND NAME	ABS DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS DOSE CHILD CANCER MEAN (mg/kg/day)	ABS DOSE ADULT CANCER MEAN (mg/kg/day)	ABS DOSE CHILD CANCER MAX (mg/kg/day)	ABS DOSE ADULT CANCER MAX (mg/kg/day)	SOIL MEAN (mg/kg)	SOIL MAX (mg/kg)	CONVERSION FACTOR kg to mg	SCR (mg/day)	RAF (unitless)	EF (day/yr)	ED CHILD (yrs)	ED ADULT (yrs)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMVOLATILES																					
1,4-Dichlorobenzene	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	1.3E-06	2.7E-07	3.1E-07	6.6E-08	1.1E-07	1.1E-07	2.7E-06	2.8E-06	0.80	0.19	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	7.9E-06	1.6E-06	4.1E-06	8.6E-07	6.8E-07	7.0E-07	3.5E-07	3.7E-07	4.80	2.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	3.2E-06	6.6E-07	1.7E-06	3.4E-07	2.7E-07	2.8E-07	1.4E-07	1.5E-07	1.93	1.00	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Acenaphthene	1.1E-06	2.3E-07	1.3E-07	2.6E-08	9.4E-08	9.7E-08	1.1E-06	1.1E-06	0.66	0.06	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Anthracene	1.2E-06	2.5E-07	2.1E-07	4.2E-08	1.0E-07	1.1E-07	1.9E-06	1.9E-06	0.74	0.13	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	7.3E-07	1.5E-07	2.6E-07	5.5E-08	6.2E-08	6.5E-08	2.3E-06	2.3E-06	0.44	0.16	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	6.0E-07	1.2E-07	1.6E-07	3.2E-08	5.2E-08	5.3E-08	1.6E-06	1.6E-06	0.36	0.11	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.1E-06	2.4E-07	1.4E-07	2.9E-08	9.8E-08	1.0E-07	1.2E-06	1.3E-06	0.89	0.09	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	1.6E-06	3.4E-07	1.1E-06	2.3E-06	1.4E-07	1.5E-07	9.6E-07	1.0E-06	0.99	6.80	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Chrysene	7.3E-07	1.5E-07	1.6E-06	3.3E-06	6.2E-06	6.5E-06	1.4E-06	1.4E-06	0.44	9.60	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	8.4E-07	1.7E-07	9.9E-06	2.1E-06	7.2E-06	7.4E-06	8.5E-09	8.9E-09	0.81	0.06	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	9.6E-07	2.0E-07	4.3E-07	8.9E-08	8.4E-08	8.7E-08	3.7E-06	3.8E-06	0.89	0.26	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Fluorene	1.3E-06	2.7E-07	3.1E-07	6.5E-08	1.1E-07	1.2E-07	2.7E-06	2.8E-06	0.80	0.19	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Hexachlorobenzene	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Hexachlorobutadiene	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Hexachloroethane	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Isophrone	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Naphthalene	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Nitrobenzene	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	1.6E-06	3.3E-07	8.3E-07	1.7E-07	1.4E-07	1.4E-07	7.1E-06	7.3E-06	0.97	0.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Pentachlorophenol	7.9E-06	1.6E-06	4.1E-06	8.6E-07	6.8E-07	7.0E-07	3.5E-07	3.7E-07	4.80	2.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	9.2E-07	1.7E-07	1.2E-06	2.5E-08	6.0E-07	7.0E-07	3.5E-07	3.7E-07	4.80	2.50	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Phenol	9.2E-07	1.7E-07	2.5E-07	5.1E-08	7.1E-08	7.3E-08	1.0E-06	1.1E-06	0.50	7.30	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Pyrene	1.2E-06	2.6E-07	9.9E-06	2.1E-06	1.1E-07	1.1E-07	8.5E-07	8.8E-07	0.75	5.00	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
4,4'-DDE	7.4E-06	1.5E-06	7.4E-06	1.5E-06	6.4E-10	6.6E-10	6.4E-10	6.6E-10	0.0048	0.0048	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Dieldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550
Toxaphene	3.8E-06	7.2E-10	3.8E-06	7.2E-10	3.0E-10	3.1E-10	3.0E-10	3.1E-10	0.0021	0.0021	1.0E-06	500	0.06	350	6	30	14.5	70	2190	10950	25550

TABLE D.4-4
SCENARIO 4
INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN AIR MEAN (mg/m3)	CONC. IN AIR MAX. (mg/m3)	IR (m3/hr)	ET (hrs/dy)	EF (dys/Yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
VOLATILES																				
1,1,1-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropene (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Carbon disulfide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.625	0.2	350	6	30	14.5	70	2190	10950	25550

TABLE D.4–5
SCENARIO 4
COMPOUND CONCENTRATIONS EMITTED FROM TAP WATER
TANK FARM FOUR

COMPOUND NAME	Concentration in tap water mean (mg/L)	Concentration in tap water maximum (mg/L)	Flow Rate Of Shower Water (l/hr)	Fraction Of Contaminant Volatilized	One Half The Duration Of Shower (hr)	Bathroom Volume (m3)	Concentration In Bathroom mean (mg/m3)	Concentration In Bathroom maximum (mg/m3)
VOLATILES								
1,1,1–Trichloroethane	NA	NA	400.0	0.9	0.1	12.0	NA	NA
1,1,2–Trichloroethane	NA	NA	400.0	0.9	0.1	12.0	NA	NA
1,1,2,2–Tetrachloroethane	NA	NA	400.0	0.9	0.1	12.0	NA	NA
1,2–Dichloropropane	NA	NA	400.0	0.9	0.1	12.0	NA	NA
1,3–Dichloropropene (cis)	NA	NA	400.0	0.9	0.1	12.0	NA	NA
1,3–Dichloropropene (trans)	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Benzene	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Bromodichloromethane	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Bromoform	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Carbon disulfide	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Carbon Tetrachloride	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Dibromochloromethane	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Styrene	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Tetrachloroethene	NA	NA	400.0	0.9	0.1	12.0	NA	NA
Trichloroethene	NA	NA	400.0	0.9	0.1	12.0	NA	NA

TABLE D.4-6
SCENARIO 4
INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR (m3/day)	EF (day/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unitless)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
INORGANICS																					
Aluminum	2.84E-06	5.86E-07	6.95E-06	1.22E-06	2.43E-07	2.62E-07	5.10E-07	5.29E-07	3.69E-10	5816.06	12200.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Antimony	2.06E-09	4.25E-10	2.29E-09	4.78E-10	1.76E-10	1.92E-10	1.97E-10	2.04E-10	3.69E-10	4.20	4.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	2.25E-09	4.66E-10	4.18E-09	8.59E-10	1.93E-10	1.99E-10	3.56E-10	3.69E-10	3.69E-10	4.60	8.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Barium	7.33E-09	1.52E-09	1.60E-08	3.32E-09	6.28E-10	6.50E-10	1.37E-09	1.42E-09	3.69E-10	15.01	32.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	1.20E-10	2.49E-11	2.84E-10	5.26E-11	1.03E-11	1.07E-11	2.18E-11	2.25E-11	3.69E-10	0.25	0.52	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Calcium	3.90E-07	8.07E-08	8.03E-07	1.04E-07	3.34E-08	3.46E-08	4.31E-08	4.48E-08	3.69E-10	798.36	1030.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	3.31E-09	6.84E-10	7.37E-09	1.53E-09	2.84E-10	2.94E-10	6.32E-10	6.54E-10	3.69E-10	6.78	15.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	4.57E-09	9.46E-10	9.42E-09	1.95E-09	3.92E-10	4.06E-10	8.07E-10	8.36E-10	3.69E-10	9.36	19.30	20	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	6.69E-09	1.39E-09	1.26E-08	2.61E-09	5.74E-10	5.94E-10	1.06E-09	1.12E-09	3.69E-10	13.71	28.80	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Iron	1.02E-06	2.12E-06	2.01E-06	4.16E-06	8.76E-07	9.07E-07	1.72E-06	1.78E-06	3.69E-10	20929.72	41100.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	9.00E-09	1.86E-09	1.96E-08	4.04E-09	7.71E-10	7.99E-10	1.67E-09	1.73E-09	3.69E-10	18.43	40.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Magnesium	8.81E-07	1.82E-07	1.27E-06	2.64E-07	7.55E-08	7.82E-08	1.09E-07	1.13E-07	3.69E-10	1804.31	2610.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Manganese	1.47E-07	3.04E-08	2.30E-07	4.76E-08	1.26E-08	1.30E-08	1.97E-08	2.04E-08	3.69E-10	300.65	471.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	6.13E-11	1.68E-11	1.17E-10	2.43E-11	6.97E-12	7.22E-12	1.00E-11	1.04E-11	3.69E-10	0.17	0.24	20	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	6.60E-09	1.37E-09	1.33E-08	2.75E-09	5.66E-10	5.86E-10	1.14E-09	1.18E-09	3.69E-10	13.53	27.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Potassium	1.38E-07	2.87E-08	1.23E-07	2.56E-08	1.19E-08	1.23E-08	1.06E-08	1.10E-08	3.69E-10	283.56	283.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Silver	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Sodium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Thallium	3.68E-10	7.41E-11	4.26E-10	8.90E-11	3.07E-11	3.18E-11	3.68E-11	3.81E-11	3.69E-10	0.73	0.88	20	350	6	30	1.0	14.5	70	2190	10950	25550
Vanadium	4.77E-09	9.86E-10	8.83E-09	1.83E-09	4.09E-10	4.24E-10	7.57E-10	7.84E-10	3.69E-10	9.76	18.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	2.90E-08	6.02E-09	4.07E-08	8.43E-09	2.49E-09	2.58E-09	3.49E-09	3.61E-09	3.69E-10	59.52	83.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																					
1,1,1-Trichloroethane	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloropropane	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropene (cis)	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropene (trans)	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromodichloromethane	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromoform	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon disulfide	8.67E-12	1.79E-12	1.22E-11	2.53E-12	7.36E-13	7.61E-13	1.06E-12	1.08E-12	3.69E-10	0.018	0.025	20	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon Tetrachloride	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibromochloromethane	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	9.06E-12	1.87E-12	9.76E-13	2.02E-13	6.90E-13	7.13E-13	8.37E-14	8.67E-14	3.69E-10	0.017	0.002	20	350	6	30	1.0	14.5	70	2190	10950	25550
Trichloroethene	8.67E-12	1.79E-12	2.93E-12	6.07E-13	7.36E-13	7.61E-13	2.51E-13	2.60E-13	3.69E-10	0.018	0.006	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE D.4-6 (cont.)
SCENARIO 4
INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
TANK FARM FOUR

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	IR (m3/day)	EF (day/yr)	ED CHILD (yrs)	ED ADULT (yrs)	RAF (unitless)	BW CHILD (kg)	BW ADULT (kg)	AT CHILD NON-CANCER (days)	AT ADULT NON-CANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,4-Dichlorobenzene	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
2-Methylnaphthalene	3.89E-10	8.06E-11	9.27E-11	1.92E-11	3.34E-11	3.46E-11	7.95E-12	8.23E-12	3.69E-10	0.80	0.19	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,5-Trichlorophenol	2.34E-09	4.85E-10	1.22E-09	2.53E-10	2.01E-10	2.08E-10	1.05E-10	1.08E-10	3.69E-10	4.80	2.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	9.43E-10	1.95E-10	4.86E-10	1.01E-10	8.09E-11	8.37E-11	4.18E-11	4.33E-11	3.69E-10	1.93	1.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Acenaphthene	3.24E-10	6.71E-11	3.71E-11	7.69E-12	2.78E-11	2.88E-11	3.19E-12	3.29E-12	3.69E-10	0.66	0.08	20	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	3.61E-10	7.47E-11	8.24E-11	1.31E-11	3.09E-11	3.20E-11	5.44E-12	5.63E-12	3.69E-10	0.74	0.13	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	2.15E-10	4.46E-11	7.81E-11	1.62E-11	1.84E-11	1.91E-11	6.69E-12	6.93E-12	3.69E-10	0.44	0.16	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	1.76E-10	3.66E-11	5.37E-11	1.11E-11	1.52E-11	1.58E-11	4.60E-12	4.77E-12	3.69E-10	0.36	0.11	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	3.34E-10	6.97E-11	4.20E-11	8.69E-12	2.86E-11	2.96E-11	3.60E-12	3.73E-12	3.69E-10	0.69	0.09	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(ghi)perylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	4.62E-10	9.56E-11	3.32E-09	6.87E-10	4.14E-11	4.28E-11	2.84E-10	2.95E-10	3.69E-10	0.99	6.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	2.15E-10	4.46E-11	4.68E-09	9.71E-10	1.84E-11	1.91E-11	4.02E-10	4.16E-10	3.69E-10	0.44	9.60	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	2.47E-10	5.12E-11	2.93E-11	6.07E-12	2.12E-11	2.19E-11	2.51E-12	2.60E-12	3.69E-10	0.51	0.06	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	2.89E-10	5.98E-11	1.27E-10	2.63E-11	2.48E-11	2.56E-11	1.09E-11	1.13E-11	3.69E-10	0.66	0.26	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	3.89E-10	8.06E-11	9.27E-11	1.92E-11	3.34E-11	3.46E-11	7.95E-12	8.23E-12	3.69E-10	0.80	0.19	20	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobenzene	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobutadiene	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachloroethane	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Isophrone	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Nitrobenzene	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	4.72E-10	9.78E-11	2.44E-10	5.06E-11	4.06E-11	4.19E-11	2.09E-11	2.17E-11	3.69E-10	0.97	0.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Pentachlorophenol	2.34E-09	4.85E-10	1.22E-09	2.53E-10	2.01E-10	2.08E-10	1.05E-10	1.08E-10	3.69E-10	4.80	2.50	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	2.43E-10	5.04E-11	3.84E-09	7.96E-10	2.08E-11	2.16E-11	3.06E-10	3.16E-10	3.69E-10	0.50	7.30	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenol	2.43E-10	5.04E-11	7.32E-11	1.52E-11	2.09E-11	2.16E-11	6.27E-12	6.50E-12	3.69E-10	0.50	0.15	20	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	3.68E-10	7.63E-11	2.93E-09	6.07E-10	3.16E-11	3.27E-11	2.51E-10	2.60E-10	3.69E-10	0.75	6.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDE	2.20E-12	4.55E-13	2.20E-12	4.55E-13	1.89E-13	1.96E-13	1.89E-13	1.96E-13	3.69E-10	0.0045	0.0045	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Aldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Alpha-chlordane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Deldrin	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Heptachlor	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	0.0021	0.0021	20	350	6	30	1.0	14.5	70	2190	10950	25550
Toxaphene	1.02E-12	2.12E-13	1.02E-12	2.12E-13	8.76E-14	9.10E-14	8.76E-14	9.10E-14	3.69E-10			20	350	6	30	1.0	14.5	70	2190	10950	25550

SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	TOTAL RISK	
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER														1.5E-04	2.0E-04	CHILD MEAN
														4.0E-04	4.3E-04	ADULT MEAN
														3.6E-03	3.7E-03	CHILD MAX
														9.7E-03	9.8E-03	ADULT MAX
INORGANICS																
Aluminum	2.2E-02	5.9E-02	1.1E+00	2.9E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Arsenic	6.0E-05	1.6E-04	1.9E-03	5.3E-03	No	1.75E+00	A	Skin	IRIS	1.0E-04	2.9E-04	3.4E-03	9.2E-03			
Barium	2.2E-04	5.9E-04	2.9E-03	7.9E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Beryllium	4.9E-06	1.3E-05	3.6E-05	1.0E-04	No	4.30E+00	B2	Gross tumors all sites combined	Water/IRIS	2.1E-05	5.7E-05	1.6E-04	4.3E-04			
Cadmium	1.5E-05	4.2E-05	3.6E-05	1.0E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Calcium	1.1E-01	3.1E-01	3.7E-01	1.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Chromium	7.1E-05	1.9E-04	1.7E-03	4.6E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Cobalt	2.1E-04	5.7E-04	2.9E-03	7.9E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Copper	1.4E-04	3.9E-04	2.4E-03	6.7E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Iron	1.1E-01	3.0E-01	4.1E-01	1.1E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Lead	7.4E-05	2.0E-04	6.7E-04	1.8E-03	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	NA	NA			
Magnesium	1.5E-01	4.1E-01	4.1E-01	1.1E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Manganese	9.9E-03	2.7E-02	4.9E-02	1.4E-01	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Nickel	2.5E-04	6.8E-04	3.2E-03	8.8E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Potassium	1.0E-02	2.8E-02	5.5E-02	1.5E-01	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Selenium	1.4E-05	3.7E-05	8.6E-05	2.3E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Silver	2.5E-05	6.8E-05	1.3E-04	3.6E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Sodium	5.7E-02	1.5E-01	1.2E-01	3.3E-01	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Thallium	4.3E-05	1.2E-04	1.7E-04	4.7E-04	No	NA			IRIS,HEAST	NA	NA	NA	NA			
Vanadium	5.7E-05	1.6E-04	7.2E-04	2.0E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Zinc	6.2E-04	1.7E-03	6.2E-03	1.7E-02	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
VOLATILES																
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA	NA	NA			
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma		NA	NA	NA	NA			
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver		NA	NA	NA	NA			
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		NA	NA	NA	NA			
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		NA	NA	NA	NA			
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA	NA	NA			
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA			
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	NA	NA	NA	NA			
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	NA	NA	NA	NA			
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	NA	NA	NA	NA			
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA	NA	NA			
Tetrachloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	0.05	B2	Liver	Gavage/HEAST	NA	NA	NA	NA			
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA	NA	NA			

TABLE D.4-7 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)$^{-1}$	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER													
INORGANICS													
SEMIVOLATILES													
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/HEAST	NA	NA	NA	NA
2-Methylnaphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	NA	NA	NA	NA
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E-02	B2	Leukemia	Diet/IRIS	NA	NA	NA	NA
2,6-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	NA	NA	NA	NA
3,3-Dichlorobenzidine	4.9E-05	1.3E-04	8.6E-05	2.3E-04	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	2.2E-05	6.1E-05	3.9E-05	1.1E-04
Acenaphthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
Anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(a)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Liver, lung, skin	IRIS	NA	NA	NA	NA
Benzo(a)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, stomach	IRIS	NA	NA	NA	NA
Benzo(b)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E+00	B2	Liver	Gavage/IRIS	NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	NA	NA	NA	NA
Butylbenzylphthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA
Chrysene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Malignant lymphoma	IRIS	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	NA	NA	NA	NA
Di-n-butylphthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluorene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Hexachlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	NA	NA	NA	NA
Hexachlorobutadiene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	NA	NA	NA	NA
Hexachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	NA	NA	NA	NA
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	NA	NA	NA	NA
Isophrone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	NA	NA	NA	NA
Naphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Nitrobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	NA	NA	NA	NA
N-nitrosodiphenylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.90E-03	B2		Diet/IRIS	NA	NA	NA	NA
Pentachlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochrom	Oral/IRIS	NA	NA	NA	NA
Phenanthrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Phenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	NA	NA
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Delldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodule	Diet/IRIS	NA	NA	NA	NA

SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day) - 1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK
														1.8E-06 CHILD MEAN
														1.8E-06 ADULT MEAN
														9.2E-07 CHILD MAXIMUM
														9.6E-07 ADULT MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL														
VOLATILES														
1,1,1-Trichloroethane	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	NA	D		IRIS	NA	NA	NA	NA	
1,1,2-Trichloroethane	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.4E-09	1.5E-09	4.8E-10	5.0E-10	
1,1,2,2-Tetrachloroethane	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	2.00E-01	C	Hepatocellular carcinoma		5.0E-09	5.2E-09	1.7E-09	1.8E-09	
1,2-Dichloropropane	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	6.80E-02	B2	Liver		1.7E-09	1.8E-09	5.8E-10	6.0E-10	
1,3-Dichloropropene (cis)	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		4.5E-09	4.6E-09	1.5E-09	1.6E-09	
1,3-Dichloropropene (trans)	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		4.5E-09	4.6E-09	1.5E-09	1.6E-09	
Benzene	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	7.2E-10	7.5E-10	2.5E-10	2.6E-10	
Bromodichloromethane	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	3.2E-09	3.4E-09	1.1E-09	1.1E-09	
Bromoform	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	2.0E-10	2.0E-10	6.7E-11	7.0E-11	
Carbon disulfide	2.5E-08	2.6E-08	3.5E-08	3.7E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Carbon Tetrachloride	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	3.2E-09	3.4E-09	1.1E-09	1.1E-09	
Dibromochloromethane	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	2.1E-09	2.2E-09	7.1E-10	7.4E-10	
Styrene	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	7.5E-10	7.7E-10	2.6E-10	2.6E-10	
Tetrachloroethene	2.3E-08	2.4E-08	2.8E-09	2.9E-09	No	0.05	B2	Liver	Gavage/HEAST	1.2E-09	1.2E-09	1.4E-10	1.5E-10	
Trichloroethene	2.5E-08	2.6E-08	8.5E-09	8.8E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	2.7E-10	2.8E-10	9.4E-11	9.7E-11	
SEMIVOLATILES														
1,4-Dichlorobenzene	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	2.40E-02	C	Liver	Gavage/HEAST	3.3E-09	3.4E-09	1.7E-09	1.8E-09	
2-Methylnaphthalene	1.1E-07	1.2E-07	2.7E-08	2.8E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
2,4-Dinitrotoluene	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	9.3E-08	9.7E-08	4.8E-08	5.0E-08	
2,4,5-Trichlorophenol	6.8E-07	7.0E-07	3.5E-07	3.7E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
2,4,6-Trichlorophenol	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	1.5E-09	1.6E-09	7.8E-10	8.1E-10	
2,6-Dinitrotoluene	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	9.3E-08	9.7E-08	4.8E-08	5.0E-08	
3,3-Dichlorobenzidine	2.7E-07	2.8E-07	1.4E-07	1.5E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.2E-07	1.3E-07	6.4E-08	6.6E-08	
Acenaphthene	9.4E-08	9.7E-08	1.1E-08	1.1E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Anthracene	1.0E-07	1.1E-07	1.8E-08	1.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Benzo(a)anthracene	6.2E-08	6.5E-08	2.3E-08	2.3E-08	No	NA	B2	Liver, lung, skin	IRIS	NA	NA	NA	NA	
Benzo(a)pyrene	5.2E-08	5.3E-08	1.6E-08	1.6E-08	No	NA	B2	Lung, stomach	IRIS	NA	NA	NA	NA	
Benzo(b)fluoranthene	9.8E-08	1.0E-07	1.2E-08	1.3E-08	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA	
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA	
Bis(2-chloroethyl)ether	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	1.10E+00	B2	Liver	Gavage/IRIS	1.5E-07	1.6E-07	7.8E-08	8.1E-08	
Bis(2ethylhexyl)phthalate	1.4E-07	1.5E-07	9.6E-07	1.0E-06	No	1.40E-02	B2	Liver	IRIS	2.0E-09	2.0E-09	1.3E-08	1.4E-08	
Butylbenzylphthalate	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA	
Chrysene	6.2E-08	6.5E-08	1.4E-08	1.4E-08	No	NA	B2	Malignant lymphoma	IRIS	NA	NA	NA	NA	
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, mammary	IRIS	NA	NA	NA	NA	
Di-n-butylphthalate	7.2E-08	7.4E-08	8.5E-09	8.8E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Fluoranthene	8.4E-08	8.7E-08	3.7E-08	3.8E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Fluorene	1.1E-07	1.2E-07	2.7E-08	2.8E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Hexachlorobenzene	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	2.2E-07	2.3E-07	1.1E-07	1.2E-07	
Hexachlorobutadiene	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	1.1E-08	1.1E-08	5.6E-09	5.7E-09	
Hexachloroethane	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	1.9E-09	2.0E-09	9.9E-10	1.0E-09	
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2	Lung, skin	IRIS	NA	NA	NA	NA	
Isophrone	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	5.6E-10	5.8E-10	2.9E-10	3.0E-10	
Naphthalene	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Nitrobenzene	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
N-nitroso-di-n-propylamine	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	9.6E-07	9.9E-07	5.0E-07	5.1E-07	
N-nitrosodiphenylamine	1.4E-07	1.4E-07	7.1E-08	7.3E-08	No	4.90E-03	B2		Diet/IRIS	6.7E-10	7.0E-10	3.5E-10	3.6E-10	
Pentachlorophenol	6.8E-07	7.0E-07	3.5E-07	3.7E-07	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochrom	Oral/IRIS	8.2E-08	8.4E-08	4.3E-08	4.4E-08	
Phenanthrene	7.1E-08	7.3E-08	1.0E-08	1.1E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Phenol	7.1E-08	7.3E-08	2.1E-08	2.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Pyrene	1.1E-07	1.1E-07	8.5E-07	8.8E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
PESTICIDES														
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	NA	NA	
4,4'-DDE	6.4E-10	6.6E-10	6.4E-10	6.6E-10	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.2E-10	2.2E-10	2.2E-10	2.2E-10	
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	NA	NA	
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA	
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA	
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA	
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA	
Toxaphene	3.0E-10	3.1E-10	3.0E-10	3.1E-10	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodule	Diet/IRIS	3.3E-10	3.4E-10	3.3E-10	3.4E-10	

SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK
														5.0E-05 CHILD MEAN
														2.6E-05 ADULT MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST														1.6E-04 CHILD MAXIMUM
														8.1E-05 ADULT MAXIMUM
INORGANICS														
Aluminum	6.6E-03	3.4E-03	1.4E-02	7.2E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Antimony	4.8E-06	2.5E-06	5.3E-06	2.8E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Arsenic	5.2E-06	2.7E-06	9.6E-06	5.0E-06	No	1.75E+00	A	Skin	IRIS	9.1E-06	4.7E-06	1.7E-05	8.7E-06	
Barium	1.7E-05	8.8E-06	3.7E-05	1.9E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Beryllium	2.8E-07	1.4E-07	5.9E-07	3.1E-07	No	4.30E+00	B2	Gross tumors all sites combined	Water/IRIS	1.2E-06	6.2E-07	2.5E-06	1.3E-06	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Calcium	9.1E-04	4.7E-04	1.2E-03	6.0E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Chromium	7.7E-06	4.0E-06	1.7E-05	8.9E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Cobalt	1.1E-05	5.5E-06	2.2E-05	1.1E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Copper	7.8E-06	2.4E-06	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Iron	2.4E-02	1.2E-02	4.7E-02	2.4E-02	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Lead	2.1E-05	1.1E-05	4.5E-05	2.3E-05	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	NA	NA	
Magnesium	2.0E-03	1.1E-03	3.0E-03	1.5E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Manganese	3.4E-04	1.8E-04	6.3E-04	2.8E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Mercury	1.9E-07	9.8E-08	2.7E-07	1.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Nickel	1.5E-05	7.9E-06	3.1E-05	1.6E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Potassium	3.2E-04	1.7E-04	2.9E-04	1.5E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Thallium	8.3E-07	4.3E-07	1.0E-06	5.2E-07	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Vanadium	1.1E-05	5.7E-06	2.1E-05	1.1E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Zinc	6.7E-05	3.5E-05	9.5E-05	4.9E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
VOLATILES														
1,1,1-Trichloroethane	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	NA	D		IRIS	NA	NA	NA	NA	
1,1,2-Trichloroethane	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.1E-09	5.9E-10	3.9E-10	2.0E-10	
1,1,2,2-Tetrachloroethane	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	2.00E-01	C	Hepatocellular carcinoma		4.0E-09	2.1E-09	1.4E-09	7.0E-10	
1,2-Dichloropropane	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	6.80E-02	B2	Liver		1.4E-09	7.0E-10	4.6E-10	2.4E-10	
1,3-Dichloropropene (cis)	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	1.90E-01	B2	Forestomach, liver, adrenal, thyroid		3.8E-09	1.9E-09	1.2E-09	6.3E-10	
1,3-Dichloropropene (trans)	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	1.80E-01	B2	Forestomach, liver, adrenal, thyroid		3.6E-09	1.9E-09	1.2E-09	6.3E-10	
Benzene	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	5.8E-10	3.0E-10	2.0E-10	1.0E-10	
Bromodichloromethane	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Gavage/IRIS	2.6E-09	1.3E-09	8.8E-10	4.6E-10	
Bromoform	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	7.90E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS	1.6E-10	8.1E-11	5.4E-11	2.8E-11	
Carbon disulfide	2.0E-06	1.0E-06	2.8E-06	1.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Carbon Tetrachloride	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	2.6E-09	1.3E-09	8.8E-10	4.6E-10	
Dibromochloromethane	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	8.40E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS	1.7E-09	8.7E-10	5.7E-10	3.0E-10	
Styrene	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	6.0E-10	3.1E-10	2.0E-10	1.1E-10	
Tetrachloroethene	1.9E-06	9.7E-09	2.3E-09	1.2E-09	No	0.05	B2	Liver	Gavage/HEAST	9.5E-10	4.9E-10	1.2E-10	6.0E-11	
Trichloroethene	2.0E-06	1.0E-06	6.8E-09	3.5E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	2.2E-10	1.1E-10	7.5E-11	3.9E-11	

TABLE D.4-9 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST													
SEMIVOLATILES													
1,4-Dichlorobenzene	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	2.40E-02	C	Liver	Gavage/HEAST	2.6E-08	1.4E-08	1.4E-08	7.0E-09
2-Methylnaphthalene	9.0E-07	4.7E-07	2.2E-07	1.1E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	7.5E-07	3.9E-07	3.9E-07	2.0E-07
2,4,5-Trichlorophenol	5.4E-06	2.8E-06	2.8E-06	1.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4,6-Trichlorophenol	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	1.10E-02	B2	Leukemia	Diet/IRIS	1.2E-08	6.2E-09	6.2E-09	3.2E-09
2,6-Dinitrotoluene	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	6.80E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	7.5E-07	3.9E-07	3.9E-07	2.0E-07
3,3-Dichlorobenzidine	2.2E-06	1.1E-06	1.1E-06	5.9E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	9.9E-07	5.1E-07	5.1E-07	2.6E-07
Acenaphthene	7.5E-07	3.9E-07	8.6E-08	4.5E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
Anthracene	8.4E-07	4.3E-07	1.5E-07	7.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(a)anthracene	5.0E-07	2.6E-07	1.8E-07	9.4E-08	No	1.15E+01	B2	Liver, lung, skin	IRIS	5.7E-06	3.0E-06	2.1E-06	1.1E-06
Benzo(a)pyrene	4.1E-07	2.1E-07	1.2E-07	6.5E-08	No	1.15E+01	B2	Lung, stomach	IRIS	4.7E-06	2.5E-06	1.4E-06	7.4E-07
Benzo(b)fluoranthene	7.8E-07	4.0E-07	9.7E-08	5.0E-08	No	1.15E+01	B2	Lung, thorax, skin	IRIS	9.0E-06	4.7E-06	1.1E-06	5.8E-07
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA
Bis(2-chloroethyl)ether	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	1.10E+00	B2	Liver	Gavage/IRIS	1.2E-06	6.2E-07	6.2E-07	3.2E-07
Bis(2ethylhexyl)phthalate	1.1E-06	5.8E-07	7.7E-08	4.0E-08	No	1.40E-02	B2	Liver	IRIS	1.6E-08	8.1E-09	1.1E-07	5.6E-08
Butylbenzylphthalate	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA
Chrysene	5.0E-07	2.6E-07	1.1E-05	5.6E-06	No	1.15E+01	B2	Malignant lymphoma	IRIS	5.7E-06	3.0E-06	1.3E-04	6.5E-05
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	NA	NA	NA	NA
Di-n-butylphthalate	5.7E-07	3.0E-07	6.8E-08	3.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluoranthene	8.7E-07	3.5E-07	2.9E-07	1.5E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluorene	9.0E-07	4.7E-07	2.2E-07	1.1E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Hexachlorobenzene	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	1.8E-06	9.1E-07	9.1E-07	4.7E-07
Hexachlorobutadiene	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	7.80E-02	C	Renal tubular adenomas and adenocarcinomas	Diet/IRIS	8.6E-08	4.4E-08	4.4E-08	2.3E-08
Hexachloroethane	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	1.5E-08	8.0E-09	7.9E-09	4.1E-09
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	NA	NA	NA	NA
Isophrone	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	4.10E-03	C	Preputial gland carcinomas, kidney tumors	Gavage/IRIS	4.5E-09	2.3E-09	2.3E-09	1.2E-09
Naphthalene	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Nitrobenzene	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitroso-di-n-propylamine	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	7.7E-06	4.0E-06	4.0E-06	2.1E-06
N-nitrosodiphenylamine	1.1E-06	5.7E-07	5.7E-07	2.9E-07	No	4.90E-03	B2		Diet/IRIS	5.4E-09	2.8E-09	2.8E-09	1.4E-09
Pentachlorophenol	5.4E-06	2.8E-06	2.8E-06	1.5E-06	No	1.20E-01	B2	Hepatocellular adenoma,carcinoma,pheochrom	Oral/IRIS	6.5E-07	3.4E-07	3.4E-07	1.8E-07
Phenanthrene	5.6E-07	2.9E-07	8.3E-08	4.3E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Phenol	5.7E-07	2.9E-07	1.7E-07	8.8E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Pyrene	6.6E-07	4.4E-07	6.8E-08	3.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.40E-01	B2	Liver tumor	Oral/IRIS	NA	NA	NA	NA
4,4'-DDE	5.1E-09	2.6E-09	5.1E-09	2.6E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.7E-09	9.0E-10	1.7E-09	9.0E-10
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver tumor	Diet/IRIS	NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.70E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Dieldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.60E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.50E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Toxaphene	2.4E-09	1.2E-09	2.4E-09	1.2E-09	No	1.10E+00	B2	Hepatocellular carcinoma and neoplastic nodule	Diet/IRIS	2.6E-09	1.4E-09	2.6E-09	1.4E-09

TABLE D.4-10
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day) -1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS														0.0E+00	CHILD MEAN
														0.0E+00	ADULT MEAN
														0.0E+00	CHILD MAXIMUM
														0.0E+00	ADULT MAXIMUM
VOLATILES															
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2		HEAST	NA	NA	NA	NA		
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA	NA	NA		
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.9E-02	A	Leukemia	Occupational/IRIS	NA	NA	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2		IRIS,HEAST	NA	NA	NA	NA		
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.9E-03	B2	Intestinal neoplastic nodules	Gavage/IRIS	NA	NA	NA	NA		
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST	NA	NA	NA	NA		
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E-01	B2	Liver	Gavage/HEAST	NA	NA	NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST	NA	NA	NA	NA		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.0E-03	B2	Leukemia	HEAST	NA	NA	NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.8E-03	B2	Leukemia, liver	HEAST	NA	NA	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.7E-02	B2	Lung	HEAST	NA	NA	NA	NA		

TABLE D.4-11
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST														2.3E-06 CHILD MEAN 2.4E-06 ADULT MEAN 4.8E-06 CHILD MAXIMUM 5.0E-06 ADULT MAXIMUM
INORGANICS														
Aluminum	2.4E-07	2.5E-07	5.1E-07	5.3E-07	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Antimony	1.8E-10	1.8E-10	2.0E-10	2.0E-10	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Arsenic	1.9E-10	2.0E-10	3.6E-10	3.7E-10	No	5.0E+01	A	Respiratory tract	Occupational/IRIS	9.6E-09	1.0E-08	1.8E-08	1.8E-08	
Barium	6.3E-10	6.5E-10	1.4E-09	1.4E-09	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Beryllium	1.0E-11	1.1E-11	2.2E-11	2.3E-11	No	8.4E+00	B2	Lung	Occupational/IRIS	8.7E-11	9.0E-11	1.8E-10	1.9E-10	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.3E+00	B1	Respiratory tract	Occupational/IRIS	NA	NA	NA	NA	
Calcium	3.3E-06	3.5E-06	4.3E-06	4.5E-06	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Chromium	2.8E-10	2.9E-10	6.3E-10	6.5E-10	No	4.2E+01	A	Lung	Occupational/IRIS	1.2E-08	1.2E-08	2.7E-08	2.7E-08	
Cobalt	3.9E-10	4.1E-10	8.1E-10	8.4E-10	No	NA	D		IRIS,HEAST	NA	NA	NA	NA	
Copper	5.7E-10	5.9E-10	1.1E-09	1.1E-09	No	NA	D		IRIS,HEAST	NA	NA	NA	NA	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS,HEAST	NA	NA	NA	NA	
Iron	8.8E-07	9.1E-07	1.7E-06	1.8E-06	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Lead	7.7E-10	8.0E-10	1.7E-09	1.7E-09	No	NA	B2		IRIS,HEAST	NA	NA	NA	NA	
Magnesium	7.5E-08	7.8E-08	1.1E-07	1.1E-07	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Manganese	1.3E-06	1.3E-06	2.0E-06	2.0E-06	No	NA	D		IRIS,HEAST	NA	NA	NA	NA	
Mercury	7.0E-12	7.2E-12	1.0E-11	1.0E-11	No	NA	D		IRIS,HEAST	NA	NA	NA	NA	
Nickel	5.7E-10	5.9E-10	1.1E-09	1.2E-09	No	8.4E-01	A	Lung and nasal tumors	Occupational/IRIS	4.8E-10	4.9E-10	9.6E-10	9.9E-10	
Potassium	1.2E-06	1.2E-06	1.1E-06	1.1E-06	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS,HEAST	NA	NA	NA	NA	
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS,HEAST	NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Thallium	3.1E-11	3.2E-11	3.7E-11	3.8E-11	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Vanadium	4.1E-10	4.2E-10	7.6E-10	7.8E-10	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Zinc	2.5E-09	2.6E-09	3.5E-09	3.6E-09	No	NA			IRIS,HEAST	NA	NA	NA	NA	
VOLATILES														
1,1,1-Trichloroethane	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	NA	D		IRIS	NA	NA	NA	NA	
1,1,2-Trichloroethane	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	4.2E-14	4.3E-14	1.4E-14	1.5E-14	
1,1,2,2-Tetrachloroethane	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	1.5E-13	1.5E-13	5.0E-14	5.2E-14	
1,2-Dichloropropane	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	NA	B2		HEAST	NA	NA	NA	NA	
1,3-Dichloropropene (cis)	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	1.3E-01	B2	Lung	Inhalation/HEAST	9.6E-14	9.9E-14	3.3E-14	3.4E-14	
1,3-Dichloropropene (trans)	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	1.3E-01	B2	Lung	Inhalation/HEAST	9.6E-14	9.9E-14	3.3E-14	3.4E-14	
Benzene	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	2.9E-02	A	Leukemia	Occupational/IRIS	2.1E-14	2.2E-14	7.3E-15	7.5E-15	
Bromodichloromethane	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	NA	B2		IRIS,HEAST	NA	NA	NA	NA	
Bromoform	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	3.9E-03	B2	Intestinal neoplastic nodules	Gavage/IRIS	2.9E-15	3.0E-15	9.8E-16	1.0E-15	
Carbon disulfide	7.3E-13	7.6E-13	1.0E-12	1.1E-12	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Carbon Tetrachloride	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	1.3E-01	B2	Liver	Gavage/HEAST	9.6E-14	9.9E-14	3.3E-14	3.4E-14	
Dibromochloromethane	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	NA			IRIS,HEAST	NA	NA	NA	NA	
Styrene	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	2.0E-03	B2	Leukemia	HEAST	1.5E-15	1.5E-15	5.0E-16	5.2E-16	
Tetrachloroethene	6.9E-13	7.2E-13	8.4E-14	8.7E-14	No	1.8E-03	B2	Leukemia, liver	HEAST	1.2E-15	1.3E-15	1.5E-16	1.6E-16	
Trichloroethene	7.3E-13	7.6E-13	2.5E-13	2.6E-13	No	1.7E-02	B2	Lung	HEAST	1.2E-14	1.3E-14	4.3E-15	4.4E-15	

TABLE D.4-11 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	SF (mg/kg/day)$^{-1}$	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD MEAN	CHEMICAL RISK ADULT MEAN	CHEMICAL RISK CHILD MAXIMUM	CHEMICAL RISK ADULT MAXIMUM
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST													
SEMIVOLATILES													
1,4-Dichlorobenzene	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	C	Liver	HEAST	NA	NA	NA	NA
2-Methylnaphthalene	3.3E-11	3.5E-11	7.9E-12	8.2E-12	No	NA			IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA		Liver, mammary	IRIS	NA	NA	NA	NA
2,4,5-Trichlorophenol	2.0E-10	2.1E-10	1.0E-10	1.1E-10	No	NA			IRIS,HEAST	NA	NA	NA	NA
2,4,6-Trichlorophenol	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	9.0E-04	B2	Leukemia	IRIS	3.6E-14	3.8E-14	1.8E-14	1.9E-14
2,6-Dinitrotoluene	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	B2	Liver, mammary	IRIS	NA	NA	NA	NA
3,3-Dichlorobenzidine	8.1E-11	8.4E-11	4.2E-11	4.3E-11	No	NA	B2		IRIS,HEAST	NA	NA	NA	NA
Acenaphthene	2.8E-11	2.9E-11	3.2E-12	3.3E-12	No	NA			IRIS	NA	NA	NA	NA
Anthracene	3.1E-11	3.2E-11	5.4E-12	5.6E-12	No	NA	D		IRIS	NA	NA	NA	NA
Benzo(a)anthracene	1.8E-11	1.9E-11	9.7E-12	9.9E-12	No	6.1E+00	B2	Liver, lung, skin	IRIS	1.1E-10	1.2E-10	4.1E-11	4.2E-11
Benzo(a)pyrene	1.5E-11	1.6E-11	4.6E-12	4.8E-12	No	6.1E+00	B2	Stomach, respiratory tract	Inhalation/HEAST	9.3E-11	9.6E-11	2.8E-11	2.9E-11
Benzo(b)fluoranthene	2.9E-11	3.0E-11	3.6E-12	3.7E-12	No	6.1E+00	B2	Lung, thorax, skin	IRIS	1.8E-10	1.8E-10	2.2E-11	2.3E-11
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		IRIS	NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.1E+00	B2	Lung, thorax, skin	IRIS	NA	NA	NA	NA
Bis(2-chloroethyl)ether	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	1.1E+00	B2	Liver	Oral/HEAST	4.5E-11	4.6E-11	2.3E-11	2.4E-11
Bis(2ethylhexyl)phthalate	4.1E-11	4.3E-11	2.8E-10	2.9E-10	No	NA	B2		HEAST	NA	NA	NA	NA
Butylbenzylphthalate	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	C		IRIS,HEAST	NA	NA	NA	NA
Chrysene	1.8E-11	1.9E-11	4.0E-10	4.2E-10	No	6.1E+00	B2	Malignant lymphoma	IRIS	1.1E-10	1.2E-10	2.4E-09	2.5E-09
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.1E+00	B2	Lung, mammary	IRIS	NA	NA	NA	NA
Di-n-butylphthalate	2.1E-11	2.2E-11	2.5E-12	2.6E-12	No	NA	D		IRIS	NA	NA	NA	NA
Fluoranthene	2.5E-11	2.6E-11	1.1E-11	1.1E-11	No	NA	D		IRIS	NA	NA	NA	NA
Fluorene	3.3E-11	3.5E-11	7.9E-12	8.2E-12	No	NA	D		IRIS	NA	NA	NA	NA
Hexachlorobenzene	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	1.6E+00	B2	Hepatocellular carcinoma	Oral/IRIS	6.5E-11	6.7E-11	3.3E-11	3.5E-11
Hexachlorobutadiene	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	7.8E-02	C	Kidney	Diet/IRIS	3.2E-12	3.3E-12	1.6E-12	1.7E-12
Hexachloroethane	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	1.4E-02	C	Hepatocellular carcinoma	Gavage/IRIS	5.7E-13	5.9E-13	2.8E-13	3.0E-13
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.1E+00	B2	Lung, skin	IRIS	NA	NA	NA	NA
Isophrone	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	D		IRIS,HEAST	NA	NA	NA	NA
Naphthalene	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	D		IRIS	NA	NA	NA	NA
Nitrobenzene	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	D		IRIS	NA	NA	NA	NA
N-nitroso-di-n-propylamine	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	B2		IRIS	NA	NA	NA	NA
N-nitrosodiphenylamine	4.0E-11	4.2E-11	2.1E-11	2.2E-11	No	NA	B2		IRIS	NA	NA	NA	NA
Pentachlorophenol	2.0E-10	2.1E-10	1.0E-10	1.1E-10	No	NA	B2		IRIS	NA	NA	NA	NA
Phenanthrene	2.1E-11	2.2E-11	3.1E-10	3.2E-10	No	NA	D		IRIS	NA	NA	NA	NA
Phenol	2.1E-11	2.2E-11	6.3E-12	6.5E-12	No	NA	D		IRIS	NA	NA	NA	NA
Pyrene	3.2E-11	3.3E-11	2.5E-10	2.6E-10	No	NA	D		IRIS	NA	NA	NA	NA
PESTICIDES													
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2		IRIS,HEAST	NA	NA	NA	NA
4,4'-DDE	1.9E-13	1.9E-13	1.9E-13	1.9E-13	No	NA	B2		HEAST	NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.4E-01	B2	Liver	Diet/IRIS,HEAST	NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.7E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Delldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.6E+01	B2	Liver carcinoma	Oral/IRIS	NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.5E+00	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
Toxaphene	8.8E-14	9.1E-14	8.8E-14	9.1E-14	No	1.1E+00	B2	Hepatocellular carcinoma and neoplastic nodule	Diet/IRIS	9.7E-14	1.0E-13	9.7E-14	1.0E-13

TABLE D.4-12
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX	PATHWAY HAZARD INDEX	TOTAL HAZARD INDEX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER																9.7E+00	1.0E+01 CHILD MEAN
																5.3E+00	5.4E+00 ADULT MEAN
																6.5E+01	6.5E+01 CHILD MAXIMUM
																3.5E+01	3.5E+01 ADULT MAXIMUM
INORGANICS																	
Aluminum	2.8E-01	1.4E-01	1.3E+01	6.9E+00	No	NA			NA/HEAST			NA	NA	NA	NA		
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST	UF=1000	MF=1	NA	NA	NA	NA		
Arsenic	7.0E-04	3.6E-04	2.2E-02	1.2E-02	No	1E-03		Keratosis and hyperpigmentation	NA/HEAST	UF=1		7.0E-01	3.6E-01	2.2E+01	1.2E+01		
Barium	2.5E-03	1.4E-03	3.4E-02	1.9E-02	No	7E-02	Medium	None Observed	Water/IRIS	UF=3	MF=1	3.6E-02	2.0E-02	4.6E-01	2.6E-01		
Beryllium	5.7E-06	3.1E-06	4.2E-04	2.3E-04	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=100	MF=1	1.1E-02	6.2E-03	8.5E-02	4.7E-02		
Cadmium	1.6E-04	8.7E-05	4.2E-04	2.3E-04	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	UF=10	MF=1	1.6E-01	8.7E-02	4.2E-01	2.3E-01		
Calcium	1.3E+00	7.2E-01	4.3E+00	2.4E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Chromium	8.3E-04	4.6E-04	2.0E-02	1.1E-02	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=500	MF=1	1.7E-01	9.1E-02	3.9E+00	2.1E+00		
Cobalt	2.4E-03	1.3E-03	3.3E-02	1.8E-02	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Copper	1.7E-03	9.2E-04	2.8E-02	1.6E-02	No	4E-02		Local GI irritation	NA/HEAST			4.2E-02	2.3E-02	7.1E-01	3.9E-01		
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss, thyroid effects, myelin degeneration	Diet/IRIS	UF=100	MF=5	NA	NA	NA	NA		
Iron	1.3E+00	7.1E-01	4.8E+00	2.6E+00	No	NA			NA/HEAST			NA	NA	NA	NA		
Lead	8.6E-04	4.7E-04	7.6E-03	4.3E-03	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA		
Magnesium	1.7E+00	9.6E-01	4.8E+00	2.6E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Manganese	1.1E-01	6.3E-02	5.7E-01	3.2E-01	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	UF=1	MF=1	1.1E+00	6.3E-01	5.7E+00	3.2E+00		
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04		Kidney effects	Oral/HEAST	UF=1000		NA	NA	NA	NA		
Nickel	2.9E-03	1.6E-03	3.7E-02	2.1E-02	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Potassium	1.2E-01	6.5E-02	6.4E-01	3.5E-01	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Selenium	1.6E-04	8.7E-05	1.0E-03	5.5E-04	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	UF=3	MF=1	3.2E-02	1.7E-02	2.0E-01	1.1E-01		
Silver	2.9E-04	1.6E-04	1.8E-03	9.4E-04	No	3E-03	Medium	Argyria	Oral/IRIS/HEAST	UF=2	MF=1	9.7E-02	5.3E-02	5.1E-01	2.8E-01		
Sodium	6.6E-01	3.6E-01	1.4E+00	7.6E-01	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Thallium	5.0E-04	2.8E-04	2.0E-03	1.1E-03	No	7E-05		Increased SGOT and serum LDH levels, alopecia	Diet/HEAST	UF=3000		7.2E+00	3.9E+00	2.8E+01	1.4E+01		
Vanadium	6.6E-04	3.6E-04	8.4E-03	4.6E-03	No	7E-03		None Observed	Water/HEAST	UF=100		9.4E-02	5.2E-02	1.2E+00	6.6E-01		
Zinc	7.2E-03	4.0E-03	7.2E-02	4.0E-02	No	2E-01		Anemia	Therapeutic/HEAST	UF=10		3.6E-02	2.0E-02	3.6E-01	2.0E-01		
VOLATILES																	
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA		
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA	NA	NA		
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	NA	NA	NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	NA	NA	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		

TABLE D.4-12 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER -															
SEMIVOLATILES															
1,4-Dichlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
2,4-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,4,5-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	5.7E-04	3.1E-04	1.0E-03	5.5E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	UF=3000	MF=1	NA	NA	NA	NA
Anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	UF=3000	MF=1	NA	NA	NA	NA
Benzo(a)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(a)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(b)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	NA	NA	NA	NA
Butylbenzylphthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	NA	NA	NA	NA
Chrysene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Di-n-butylphthalate	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	NA	NA	NA	NA
Fluorene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	NA	NA	NA	NA
Hexachlorobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Hexachlorobutadiene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Hexachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Isophrone	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Naphthalene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		NA	NA	NA	NA
Nitrobenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS,HEAST	UF=10,000		NA	NA	NA	NA
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	NA	NA
Pentachlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Phenanthrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA	NA	NA
Phenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	NA	NA	NA	NA
Pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	NA	NA	NA	NA
PESTICIDES															
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Delidrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	NA	NA
Toxaphene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA

TABLE D.4-13
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX	PATHWAY HAZARD INDEX
																1.2E-02 CHILD MEAN
																2.6E-03 ADULT MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																1.3E-02 CHILD MAXIMUM
																2.6E-03 ADULT MAXIMUM
VOLATILES																
1,1,1-Trichloroethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	NA	NA	NA	NA	
1,1,2-Trichloroethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	7.3E-05	1.5E-05	2.5E-05	5.1E-06	
1,1,2,2-Tetrachloroethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloropropane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	NA			NA/HEAST			NA	NA	NA	NA	
1,3-Dichloropropene (cis)	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	9.7E-04	2.0E-04	3.3E-04	6.8E-05	
1,3-Dichloropropene (trans)	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	9.7E-04	2.0E-04	3.3E-04	6.8E-05	
Benzene	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromodichloromethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	1.5E-05	3.0E-06	5.0E-06	1.0E-06	
Bromoform	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	1.5E-05	3.0E-06	5.0E-06	1.0E-06	
Carbon disulfide	2.9E-07	6.0E-08	4.1E-07	8.6E-08	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	2.9E-06	6.0E-07	4.1E-06	8.6E-07	
Carbon Tetrachloride	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	4.1E-04	8.6E-05	1.4E-04	2.9E-05	
Dibromochloromethane	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	1.5E-05	3.0E-06	5.0E-06	1.0E-06	
Styrene	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	1.5E-06	3.0E-07	5.0E-07	1.0E-07	
Tetrachloroethene	2.7E-07	5.7E-08	3.3E-08	6.8E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	2.7E-05	5.7E-06	3.3E-06	6.8E-07	
Trichloroethene	2.9E-07	6.0E-08	9.9E-08	2.1E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
SEMIVOLATILES																
1,4-Dichlorobenzene	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
2-Methylnaphthalene	1.3E-06	2.7E-07	3.1E-07	6.5E-08	No	4E-03			NA/IRIS,HEAST			3.3E-04	6.8E-05	7.9E-05	1.6E-05	
2,4-Dinitrotoluene	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
2,4,5-Trichlorophenol	7.9E-06	1.4E-06	4.1E-06	8.6E-07	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	7.9E-05	1.5E-05	4.1E-05	8.6E-06	
2,4,6-Trichlorophenol	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
2,6-Dinitrotoluene	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	NA			NA/HEAST			NA	NA	NA	NA	
3,3-Dichlorobenzidine	3.2E-06	6.6E-07	1.7E-06	3.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Acenaphthene	1.1E-06	2.3E-07	1.3E-07	2.6E-08	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	UF=3000	MF=1	1.8E-05	3.8E-06	2.1E-06	4.3E-07	
Anthracene	1.2E-06	2.5E-07	2.1E-07	4.5E-08	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	UF=3000	MF=1	4.1E-06	8.4E-07	7.2E-07	1.5E-07	
Benzo(a)anthracene	7.3E-07	1.5E-07	2.6E-07	5.5E-08	No	4E-03			NA/IRIS,HEAST			1.8E-04	3.8E-05	6.6E-05	1.4E-05	
Benzo(a)pyrene	6.0E-07	1.2E-07	1.8E-07	3.8E-08	No	4E-03			NA/IRIS,HEAST			1.5E-04	3.1E-05	4.5E-05	9.4E-06	
Benzo(b)fluoranthene	1.1E-06	2.4E-07	1.4E-07	2.9E-08	No	4E-03			NA/IRIS,HEAST			2.8E-04	5.9E-05	3.6E-05	7.4E-06	
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA	
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA	
Bis(2-chloroethyl)ether	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bis(ethylhexyl)phthalate	1.8E-06	3.4E-07	1.1E-06	2.3E-06	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	9.2E-05	1.7E-05	5.6E-04	1.2E-04	
Butylbenzylphthalate	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	2E-01	Low	Effects on body wt gain, testes, liver, kidney	Diet/IRIS,HEAST	UF=1000	MF=1	9.0E-06	1.7E-06	4.1E-06	8.6E-07	
Chrysene	7.3E-07	1.5E-07	1.8E-05	3.3E-06	No	4E-03			NA/HEAST			1.8E-04	3.8E-05	4.0E-03	8.2E-04	
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA	
Di-n-butylphthalate	8.4E-07	1.7E-07	9.9E-08	2.1E-08	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	8.4E-06	1.7E-06	9.9E-07	2.1E-07	
Fluoranthene	9.8E-07	2.0E-07	4.3E-07	8.9E-08	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	2.4E-05	5.1E-06	1.1E-05	2.2E-06	
Fluorene	1.3E-06	2.7E-07	3.1E-07	6.5E-08	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	3.3E-05	6.8E-06	7.9E-06	1.6E-06	
Hexachlorobenzene	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	2.0E-03	4.1E-04	1.0E-03	2.1E-04	
Hexachlorobutadiene	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	9.0E-04	1.7E-04	4.1E-04	8.6E-05	
Hexachloroethane	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	1.8E-03	3.3E-04	6.3E-04	1.7E-04	
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA	
Isophrone	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	9.0E-06	1.7E-06	4.1E-06	8.6E-07	
Naphthalene	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		4.0E-04	8.3E-05	2.1E-04	4.3E-05	
Nitrobenzene	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	9E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS,HEAST	UF=10,000		3.2E-03	6.6E-04	1.7E-03	3.4E-04	
N-nitroso-di-n-propylamine	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
N-nitrosodiphenylamine	1.8E-06	3.3E-07	6.3E-07	1.7E-07	No	NA			NA/HEAST			NA	NA	NA	NA	
Pentachlorophenol	7.9E-06	1.6E-06	4.1E-06	8.6E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	2.6E-04	5.5E-05	1.4E-04	2.9E-05	
Phenanthrene	8.2E-07	1.7E-07	1.2E-06	2.5E-06	No	4E-03			NA/HEAST			2.1E-04	4.3E-05	3.0E-03	6.3E-04	
Phenol	8.2E-07	1.7E-07	2.5E-07	5.1E-08	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	1.4E-06	2.8E-07	4.1E-07	8.6E-08	
Pyrene	1.2E-06	2.6E-07	9.9E-08	2.1E-08	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	4.2E-05	8.6E-06	3.3E-04	6.8E-05	
PESTICIDES																
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA	
4,4'-DDE	7.4E-09	1.5E-09	7.4E-09	1.5E-09	No	NA						NA	NA	NA	NA	
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA	
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA	
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA	
Dieldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA	
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	NA	NA	
Toxaphene	3.5E-09	7.2E-10	3.5E-09	7.2E-10	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	

TABLE D.4-14
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJUSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX	PATHWAY HAZARD INDEX
																5.1E-01 CHILD MEAN
																5.3E-02 ADULT MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST																6.9E-01 CHILD MAXIMUM
																7.2E-02 ADULT MAXIMUM
INORGANICS																
Aluminum	7.7E-02	8.0E-03	1.8E-01	1.7E-02	No	NA				NA/HEAST		NA	NA	NA	NA	
Antimony	5.8E-05	5.8E-06	6.2E-05	6.4E-06	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST	UF=1000	MF=1	1.4E-01	1.4E-02	1.6E-01	1.6E-02	
Arsenic	6.1E-05	6.3E-06	1.1E-04	1.2E-05	No	1E-03		Keratosis and hyperpigmentation	NA/HEAST	UF=1		6.1E-02	6.3E-03	1.1E-01	1.2E-02	
Barium	2.0E-04	2.1E-05	4.3E-04	4.5E-05	No	7E-02	Medium	None Observed	Water/IRIS	UF=3	MF=1	2.8E-03	2.9E-04	6.2E-03	6.4E-04	
Beryllium	3.3E-06	3.4E-07	6.9E-06	7.1E-07	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=100	MF=1	6.5E-04	6.8E-05	1.4E-03	1.4E-04	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	UF=10	MF=1	NA	NA	NA	NA	
Calcium	1.1E-02	1.1E-03	1.4E-02	1.4E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Chromium	9.0E-05	9.3E-06	2.0E-04	2.1E-05	No	5E-03	Low	None Observed	Water/IRIS,HEAST	UF=500	MF=1	1.8E-02	1.9E-03	4.0E-02	4.1E-03	
Cobalt	1.2E-04	1.3E-05	2.6E-04	2.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Copper	9.1E-05	5.6E-06	0.0E+00	0.0E+00	No	4E-02		Local GI irritation	NA/HEAST			2.3E-03	1.4E-04	0.0E+00	0.0E+00	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss,thyroid effects,myelin degeneration	Diet/IRIS	UF=100	MF=5	NA	NA	NA	NA	
Iron	2.8E-01	2.9E-02	5.4E-01	5.6E-02	No	NA			NA/HEAST			NA	NA	NA	NA	
Lead	2.4E-04	2.5E-05	5.3E-04	5.5E-05	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA	
Magnesium	2.4E-02	2.5E-03	3.5E-02	3.6E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Manganese	4.0E-03	4.1E-04	8.2E-03	8.5E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	UF=1	MF=1	4.0E-02	4.1E-03	8.2E-02	8.5E-03	
Mercury	2.2E-06	2.3E-07	3.2E-06	3.3E-07	No	3E-04		Kidney effects	Oral/HEAST	UF=1000		7.3E-03	7.6E-04	1.1E-02	1.1E-03	
Nickel	1.8E-04	1.9E-05	3.6E-04	3.7E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Potassium	3.8E-03	3.9E-04	3.3E-03	3.5E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	UF=3	MF=1	NA	NA	NA	NA	
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-03	Medium	Argyria	Oral/IRIS/HEAST	UF=2	MF=1	NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Thallium	9.7E-06	1.0E-06	1.2E-05	1.2E-06	No	7E-05		Increased SGOT and serum LDH levels, alopecia	Diet/HEAST	UF=3000		1.4E-01	1.4E-02	1.7E-01	1.7E-02	
Vanadium	1.3E-04	1.3E-05	2.4E-04	2.5E-05	No	7E-03		None Observed	Water/HEAST	UF=100		1.8E-02	1.9E-03	3.4E-02	3.5E-03	
Zinc	7.9E-04	8.2E-05	1.1E-03	1.1E-04	No	2E-01		Anemia	Therapeutic/HEAST	UF=10		3.9E-03	4.1E-04	5.5E-03	5.7E-04	
VOLATILES																
1,1,1-Trichloroethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	9E-02	Medium	No adverse effect	Inhalation/IRIS	UF=1000	MF=1	2.6E-06	2.7E-07	8.8E-07	9.1E-08	
1,1,2-Trichloroethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF=1000	MF=1	5.8E-05	6.0E-06	2.0E-05	2.1E-06	
1,1,2,2-Tetrachloroethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloropropane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	NA			NA/HEAST			NA	NA	NA	NA	
1,3-Dichloropropene (cis)	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	7.7E-04	8.0E-05	2.6E-04	2.7E-05	
1,3-Dichloropropene (trans)	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF=10,000	MF=1	7.7E-04	8.0E-05	2.6E-04	2.7E-05	
Benzene	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromodichloromethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF=1000	MF=1	1.2E-05	1.2E-06	4.0E-06	4.1E-07	
Bromoform	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	1.2E-05	1.2E-06	4.0E-06	4.1E-07	
Carbon disulfide	2.3E-07	2.4E-08	3.3E-07	3.4E-08	No	1E-01	Medium	Fetal toxicity	Inhalation/IRIS	UF=100	MF=1	2.3E-06	2.4E-07	3.3E-06	3.4E-07	
Carbon Tetrachloride	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	7E-04	Medium	Liver lesions	Gavage/IRIS	UF=1000	MF=1	3.3E-04	3.4E-05	1.1E-04	1.2E-05	
Dibromochloromethane	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF=1000	MF=1	1.2E-05	1.2E-06	4.0E-06	4.1E-07	
Styrene	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF=1000	MF=1	1.2E-06	1.2E-07	4.0E-07	4.1E-08	
Tetrachloroethene	2.2E-07	2.3E-08	2.6E-06	2.7E-07	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	UF=100	MF=1	2.2E-05	2.3E-06	2.6E-06	2.7E-07	
Trichloroethene	2.3E-07	2.4E-08	7.9E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	

TABLE D.4-14 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST															
SEMIVOLATILES															
1,4-Dichlorobenzene	1.3E-06	1.3E-06	6.6E-06	6.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	1.1E-05	1.1E-06	2.5E-06	2.6E-07	No	4E-03			NA/IRIS,HEAST			2.6E-03	2.7E-04	6.3E-04	6.5E-05
2,4-Dinitrotoluene	1.3E-06	1.3E-06	6.6E-06	6.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,4,5-Trichlorophenol	6.3E-05	6.6E-06	3.3E-05	3.4E-06	No	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000	MF=1	6.3E-04	6.6E-05	3.3E-04	3.4E-05
2,4,6-Trichlorophenol	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	NA			NA/HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	2.6E-05	2.6E-06	1.3E-05	1.4E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	6.6E-06	9.1E-07	1.0E-06	1.0E-07	No	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	UF=3000	MF=1	1.5E-04	1.5E-05	1.7E-05	1.7E-06
Anthracene	9.6E-06	1.0E-06	1.7E-06	1.8E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	UF=3000	MF=1	3.3E-05	3.4E-06	5.7E-06	5.9E-07
Benzo(a)anthracene	5.6E-06	6.0E-07	2.1E-06	2.2E-07	No	4E-03			NA/IRIS,HEAST			1.5E-03	1.5E-04	5.3E-04	5.5E-05
Benzo(a)pyrene	4.6E-06	5.0E-07	1.5E-06	1.5E-07	No	4E-03			NA/IRIS,HEAST			1.2E-03	1.2E-04	3.6E-04	3.8E-05
Benzo(b)fluoranthene	9.1E-06	9.4E-07	1.1E-06	1.2E-07	No	4E-03			NA/IRIS,HEAST			2.3E-03	2.4E-04	2.8E-04	2.9E-05
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2-chloroethyl)ether	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	1.3E-05	1.4E-06	9.0E-05	9.3E-06	No	2E-02		Increased relative liver weight	Diet/IRIS,HEAST	UF=1000	MF=1	6.6E-04	6.6E-05	4.5E-03	4.7E-04
Butylbenzylphthalate	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	2E-01	Low	Effects on body wt gain,testes,liver,kidney	Diet/IRIS,HEAST	UF=1000	MF=1	6.6E-05	6.6E-06	3.3E-05	3.4E-06
Chrysene	5.6E-06	6.0E-07	1.3E-04	1.3E-05	No	4E-03			NA/HEAST			1.5E-03	1.5E-04	3.2E-02	3.3E-03
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Di-n-butylphthalate	6.7E-06	6.9E-07	7.9E-07	8.2E-08	No	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000	MF=1	6.7E-05	6.9E-06	7.9E-06	8.2E-07
Fluoranthene	7.8E-06	8.1E-07	3.4E-06	3.6E-07	No	4E-02	Low	Neuropathy, changes in liver wt., hematology	Gavage/IRIS	UF=3000	MF=1	2.0E-04	2.0E-05	8.6E-05	8.9E-06
Fluorene	1.1E-05	1.1E-06	2.5E-06	2.6E-07	No	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000	MF=1	2.6E-04	2.7E-05	6.3E-05	6.5E-06
Hexachlorobenzene	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	UF=100	MF=1	1.6E-02	1.7E-03	8.3E-03	8.6E-04
Hexachlorobutadiene	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100	MF=1	6.4E-03	6.6E-04	3.3E-03	3.4E-04
Hexachloroethane	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	1E-03	Medium	Atrophy and degeneration of the renal tubules	Diet/IRIS	UF=1000	MF=1	1.3E-02	1.3E-03	6.6E-03	6.6E-04
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA	NA	NA
Isophrone	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	2E-01	Low	No observed effects	Oral/IRIS	UF=1000	MF=1	6.4E-05	6.6E-06	3.3E-05	3.4E-06
Naphthalene	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	UF=10,000		3.2E-03	3.3E-04	1.7E-03	1.7E-04
Nitrobenzene	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	5E-04	Low	Hematologic,adrenal,renal and hepatic lesions	Inhalation/IRIS,HEAST	UF=10,000		2.6E-02	2.7E-03	1.3E-02	1.4E-03
N-nitroso-di-n-propylamine	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	1.3E-05	1.3E-06	6.6E-06	6.6E-07	No	NA			NA/HEAST			NA	NA	NA	NA
Pentachlorophenol	6.3E-05	6.6E-06	3.3E-05	3.4E-06	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100	MF=1	2.1E-03	2.2E-04	1.1E-03	1.1E-04
Phenanthrene	6.6E-06	6.6E-07	9.7E-06	1.0E-06	No	4E-03			NA/HEAST			1.6E-03	1.7E-04	2.4E-02	2.5E-03
Phenol	6.6E-06	6.6E-07	2.0E-06	2.1E-07	No	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100	MF=1	1.1E-05	1.1E-06	3.3E-06	3.4E-07
Pyrene	1.0E-05	1.0E-06	7.9E-05	8.2E-06	No	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000	MF=1	3.3E-04	3.4E-05	2.6E-03	2.7E-04
PESTICIDES															
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA						NA	NA	NA	NA
4,4'-DDE	6.0E-06	6.2E-06	6.0E-06	6.2E-06	No	NA						NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000	MF=1	NA	NA	NA	NA
Deildrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100	MF=1	NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300	MF=1	NA	NA	NA	NA
Toxaphene	2.8E-06	2.9E-09	2.8E-06	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA

TABLE D.4-15
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX	PATHWAY HAZARD INDEX	
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS																NA	CHILD MEAN
																NA	ADULT MEAN
																NA	CHILD MAXIMUM
																NA	ADULT MAXIMUM
VOLATILES																	
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-01		Hepatotoxicity	HEAST	UF=1000		NA	NA	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			HEAST			NA	NA	NA	NA		
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	UF=30		NA	NA	NA	NA		
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	UF=30		NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Carbon disulfide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.0E-03		Fetal toxicity	HEAST	UF=1000		NA	NA	NA	NA		
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA		

TABLE D.4-16
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJUSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX	PATHWAY HAZARD INDEX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST																1.8E-03 CHILD MEAN 3.2E-04 ADULT MEAN 2.5E-03 CHILD MAXIMUM 5.2E-04 ADULT MAXIMUM
INORGANICS																
Aluminum	2.9E-06	5.9E-07	8.0E-06	1.2E-06	No	NA										
Antimony	2.0E-09	4.2E-10	2.3E-09	4.8E-10	No	4.0E-04			NA/HEAST			NA	NA	NA	NA	
Arsenic	2.2E-09	4.7E-10	4.1E-09	9.6E-10	No	1.0E-03						5.1E-06	1.1E-06	5.7E-06	1.2E-06	
Barium	7.3E-06	1.5E-06	1.8E-06	3.3E-06	No	1.0E-04		Fetotoxicity	HEAST	UF=1000		2.2E-06	4.7E-07	4.1E-06	8.6E-07	
Beryllium	1.2E-10	2.5E-11	2.5E-10	5.3E-11	No	5.0E-03						7.3E-05	1.5E-05	1.6E-04	3.3E-06	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.0E-03						2.4E-06	5.0E-06	5.1E-06	1.1E-06	
Calcium	3.8E-07	8.1E-08	6.0E-07	1.0E-07	No	NA						NA	NA	NA	NA	
Chromium	3.3E-08	6.9E-10	7.4E-09	1.5E-09	No	6.0E-04		Nasal mucosa atrophy	NA/IRIS,HEAST HEAST	UF=300		NA	NA	NA	NA	
Cobalt	4.6E-08	9.5E-10	9.4E-09	2.0E-09	No	NA						5.5E-06	1.1E-06	1.2E-06	2.5E-06	
Copper	6.7E-09	1.4E-09	1.3E-08	2.8E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.0E-02		Myelin degeneration	IRIS,HEAST			NA	NA	NA	NA	
Iron	1.0E-05	2.1E-06	2.0E-05	4.2E-06	No	NA						NA	NA	NA	NA	
Lead	9.0E-09	1.9E-09	2.0E-08	4.0E-09	No	NA		CNS effects	IRIS,HEAST			NA	NA	NA	NA	
Magnesium	6.8E-07	1.4E-07	1.3E-06	2.8E-07	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Manganese	1.5E-07	3.0E-08	2.3E-07	4.8E-08	No	1.0E-04	Medium	Increased resp. disease,psychomotor disturbance	Occupational/IRIS	UF=300	MF=3	1.5E-03	3.0E-04	2.3E-03	4.8E-04	
Mercury	8.1E-11	1.7E-11	1.2E-10	2.4E-11	No	9.0E-06		Neurotoxicity	Occupational/HEAST	UF=30		9.0E-06	1.9E-06	1.3E-05	2.7E-06	
Nickel	6.6E-08	1.4E-08	1.3E-06	2.7E-09	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Potassium	1.4E-07	2.9E-08	1.2E-07	2.6E-08	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Thallium	3.6E-10	7.4E-11	4.3E-10	8.9E-11	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Vanadium	4.8E-09	9.9E-10	8.8E-09	1.8E-09	No	7.0E-03						NA	NA	NA	NA	
Zinc	2.9E-08	6.0E-09	4.1E-08	8.4E-09	No	2.0E-01						6.6E-07	1.4E-07	1.3E-06	2.6E-07	
												1.5E-07	3.0E-08	2.0E-07	4.2E-08	
VOLATILES																
1,1,1-Trichloroethane	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	3.0E-01		Hepatotoxicity	HEAST	UF=1000		2.8E-11	5.9E-12	9.3E-12	2.0E-12	
1,1,2-Trichloroethane	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloropropane	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			HEAST			NA	NA	NA	NA	
1,3-Dichloropropene (cis)	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	UF=30		1.4E-09	3.0E-10	4.8E-10	1.0E-10	
1,3-Dichloropropene (trans)	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	UF=30		1.4E-09	3.0E-10	4.8E-10	1.0E-10	
Benzene	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Bromodichloromethane	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Bromoform	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Carbon disulfide	8.6E-12	1.8E-12	1.2E-11	2.5E-12	No	3.0E-03		Fetal toxicity	HEAST	UF=1000		2.8E-09	5.9E-10	4.1E-09	8.4E-10	
Carbon Tetrachloride	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Dibromochloromethane	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Styrene	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Tetrachloroethene	8.1E-12	1.7E-12	9.8E-13	2.0E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	
Trichloroethene	8.6E-12	1.8E-12	2.5E-12	6.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA	

TABLE D.4-16 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX RATIO ESTIMATES
TANK FARM FOUR

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCRTNTY ADJSTMNT	MODIFYING FACTORS	HAZARD INDEX CHILD MEAN	HAZARD INDEX ADULT MEAN	HAZARD INDEX CHILD MAX	HAZARD INDEX ADULT MAX
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST															
SEMIVOLATILES															
1,4-Dichlorobenzene	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	2.0E-01		Liver and kidney effects	HEAST	UF=100		2.4E-09	4.9E-10	1.2E-09	2.5E-10
2-Methylnaphthalene	3.9E-10	8.1E-11	9.3E-11	1.9E-11	No	4.0E-03			IRIS,HEAST			9.7E-08	2.0E-08	2.3E-08	4.8E-09
2,4-Dinitrotoluene	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			HEAST			NA	NA	NA	NA
2,4,5-Trichlorophenol	2.3E-09	4.8E-10	1.2E-09	2.5E-10	No	NA			HEAST			NA	NA	NA	NA
2,4,6-Trichlorophenol	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	9.4E-10	2.0E-10	4.9E-10	1.0E-10	No	NA			IRIS,HEAST			NA	NA	NA	NA
Acenaphthene	3.2E-10	6.7E-11	3.7E-11	7.7E-12	No	6.0E-02						5.4E-09	1.1E-09	6.2E-10	1.3E-10
Anthracene	3.6E-10	7.5E-11	6.3E-11	1.3E-11	No	3.0E-01						1.2E-09	2.5E-10	2.1E-10	4.4E-11
Benzo(a)anthracene	2.1E-10	4.4E-11	7.8E-11	1.6E-11	No	4.0E-03			IRIS,HEAST			5.4E-08	1.1E-08	2.0E-08	4.0E-09
Benzo(a)pyrene	1.8E-10	3.7E-11	5.4E-11	1.1E-11	No	4.0E-03			IRIS,HEAST			4.4E-08	9.2E-09	1.3E-08	2.8E-09
Benzo(b)fluoranthene	3.4E-10	7.0E-11	4.2E-11	8.7E-12	No	4.0E-03			IRIS,HEAST			8.4E-08	1.7E-08	1.0E-08	2.2E-09
Benzo(ghi)perylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.0E-03			IRIS,HEAST			NA	NA	NA	NA
Benzo(k)fluoranthene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.0E-03			IRIS,HEAST			NA	NA	NA	NA
Bis(2-chloroethyl)ether	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			IRIS,HEAST			NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	4.8E-10	1.0E-10	3.3E-09	6.9E-10	No	2.0E-02						2.4E-08	5.0E-09	1.7E-07	3.4E-08
Butylbenzylphthalate	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	2.0E-01						2.4E-09	4.9E-10	1.2E-09	2.5E-10
Chrysene	2.2E-10	4.5E-11	4.7E-09	9.7E-10	No	4.0E-03			HEAST			5.4E-08	1.1E-08	1.2E-08	2.4E-07
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.0E-03			IRIS,HEAST			NA	NA	NA	NA
Di-n-butylphthalate	2.5E-10	5.1E-11	2.9E-11	6.1E-12	No	1.0E-01						2.5E-09	5.1E-10	2.9E-10	6.1E-11
Fluoranthene	2.9E-10	6.0E-11	1.3E-10	2.6E-11	No	4.0E-02						7.2E-09	1.5E-09	3.2E-09	6.6E-10
Fluorene	3.9E-10	8.1E-11	9.3E-11	1.9E-11	No	4.0E-02						9.7E-09	2.0E-09	2.3E-09	4.8E-10
Hexachlorobenzene	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			IRIS			NA	NA	NA	NA
Hexachlorobutadiene	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			HEAST			NA	NA	NA	NA
Hexachloroethane	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			IRIS,HEAST			NA	NA	NA	NA
Indeno(123cd)pyrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4.0E-03			IRIS,HEAST			NA	NA	NA	NA
Isophrone	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			IRIS			NA	NA	NA	NA
Naphthalene	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	4.0E-03						1.2E-07	2.4E-08	6.1E-08	1.3E-08
Nitrobenzene	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	5.0E-04		Hematologic, adrenal, renal, liver lesions	HEAST	UF=3000		9.4E-07	2.0E-07	4.9E-07	1.0E-07
N-nitroso-di-n-propylamine	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	4.7E-10	9.8E-11	2.4E-10	5.1E-11	No	NA			IRIS,HEAST			NA	NA	NA	NA
Pentachlorophenol	2.3E-09	4.8E-10	1.2E-09	2.5E-10	No	NA			IRIS,HEAST			NA	NA	NA	NA
Phenanthrene	2.4E-10	5.0E-11	3.8E-09	7.4E-10	No	4.0E-03			HEAST			6.1E-08	1.3E-08	9.9E-07	1.9E-07
Phenol	2.4E-10	5.0E-11	7.3E-11	1.5E-11	No	NA			HEAST			NA	NA	NA	NA
Pyrene	3.7E-10	7.6E-11	2.9E-09	6.1E-10	No	3.0E-02						1.2E-08	2.5E-09	9.8E-08	2.0E-08
PESTICIDES															
4,4'-DDD	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
4,4'-DDE	2.2E-12	4.5E-13	2.2E-12	4.5E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-04						NA	NA	NA	NA
Aldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Alpha-chlordane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Deldrin	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Heptachlor	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			IRIS,HEAST			NA	NA	NA	NA
Toxaphene	1.0E-12	2.1E-13	1.0E-12	2.1E-13	No	NA			IRIS,HEAST			NA	NA	NA	NA

APPENDIX E

RISK ASSESSMENT METHODS

TANK FARM 5

TRC

APPENDIX E

RISK ASSESSMENT METHODS

Four different exposure scenarios were included in the risk assessment for Tank Farm Five. A trespasser scenario involves exposures to the site as it currently exists, another current scenario involves use of the site as a fire fighting training facility, and two scenarios involve exposures related to potential future uses (construction and residential uses) of the site. The scenarios are briefly described below. Model equations and parameter values for each exposure pathway follow.

SCENARIO 1: Current Use - Trespassing

Children may trespass on the site as it currently exists to play in potentially impacted areas (oil/water separator, areas surrounding the tanks), and thereby potentially may have contact with contaminated soil. The site is readily accessible and evidence of trespassing (e.g., children riding bicycles on site) has been observed. As a result, children may receive dermal and ingestion exposures to contaminants on-site through contact with surface soils or surface water (a stream runs across the site). It is assumed that children trespass onto the site 350 days per year due to its close proximity to private housing, that children are unlikely to enter the site on a regular basis before the age of 9, and regular exposures are not expected beyond the age of 18 due to changes in the use of recreational time.

Adults may trespass onto the site as it currently exists and may receive dermal and ingestion exposures to soil contaminants and dermal exposure to surface water. It is assumed that adults may cross the site 350 days/year.

SCENARIO 2: Current Use - Commercial/Industrial

Current use of the site as a fire fighting training facility presents a potential exposure of employees and trainees to site contamination. Such exposures are most likely to include incidental ingestion of and dermal exposure to contaminants in soil. Since ground water is not currently used for potable water, exposure to ground water is not included. Further, no exposure to on-site surface water is assumed to occur. It is assumed that employees would be on site five days/week, fifty weeks/year, for twenty-five years.

SCENARIO 3: Future Use - Construction

In the future, construction workers may be involved in building commercial/industrial property on the site. Through excavation and site preparation activities, they could receive extensive inhalation exposure to contaminants in dust, as well as dermal and ingestion exposures to contaminants in soil. It is assumed that excavation and site preparation activities would last for a 12 month period, and that no remediation of contaminants would occur prior to construction or residential site use (discussed below). Contact with surface water or ground water is not assumed to occur in this scenario.

SCENARIO 4: Future Use - Residential

Children and adults may occupy residences on the site. Separate scenarios are constructed for each receptor. In both cases, the relevant exposure pathways are indoor and outdoor ingestion of dust/soil, outdoor dermal exposure to soil contaminants, outdoor inhalation of contaminants in dust, indoor inhalation of volatile compounds emanating from tap water, and

ingestion exposures to contaminants in tap water. For children, parameter values for 0-6 year old children were selected, and exposure was assumed to take place over 6 years. For adults, exposure is assumed to occur for 30 years. For both receptors, the exposure frequency is assumed to be 350 days/year.

EXPOSURE EQUATIONS

SCENARIO 1: Current Use - Trespassing

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS =

Volatile Organic Coumpounds	0.50
Semivolatile Organic Compounds:	
PAHs	0.05
PCBs	0.05
Pesticides:	
High soil sorption	0.05
Low soil sorption	0.50
Inorganics	Negligible

EF = 350 days/year
ED = 9 years for children, 30 years for adults
BW = 49.2 kg (EPA, 1990b) (children 9-18 years old), 70 kg (adults)
AT = 3,285 days for non-cancer risks in children, 10,950 days for adults
25,550 days for cancer risks for both children and adults

TRC

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day, which is typical for this age group.
EF = 350 days/year
ED = 9 years for children, 30 years for adults
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics	
- Lead:	
Children	0.5
Adults	0.3
- All others:	1.0

BW = 49.2 kg (EPA, 1990b) (children 9-18 years old), 70 kg (adults)
AT = 3,285 days for non-cancer risks in children and 10,950 days for adults
25,550 days for cancer risks for both children and adults

- Dermal Contact with Chemicals in Surface Water

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CW \times SA \times PC \times ET \times EF \times ED \times CF}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
SA = Skin Surface Area Available for Contact (cm^2)
PC = Chemical-specific Dermal Permeability Constant (cm/hr)

TRC

ET = Exposure Time (hours/day)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
CF = Volumetric Conversion Factor for Water (1 liter/1000 cm^3)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SA = 5,673 cm^2 for adults (EPA, 1990b), 7,505 cm^2 for 9-18 year old children, for partial body exposure
PC = 8.4 E-4 cm/hour, based upon penetration of water across skin (EPA, 1986)
ET = 4 hrs/day, assumes clothing remains wet for this time period
EF = 150 days/year for children and 150 days/year for adults
ED = 30 years for adults, 9 years for children
BW = 70 kg for adults, 49.2 kg for children 9-18 years old
AT = 3,285 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

SCENARIO 2: Current Use - Commercial/Industrial/Fire Fighting Training Facility

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

where:

SCR = Skin Contact Rate (mg/day)
CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day

ABS = Volatile Organic Coumpounds	0.50
Semivolatile Organic Compounds:	
PAHs	0.05
PCBs	0.05
Pesticides:	
High soil sorption	0.05
Low soil sorption	0.50

TRC

	Inorganics	Negligible

EF = 250 days/year
ED = 25 years
BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 50 mg/day
EF = 250 days/year
ED = 25 years
RAF =

Volatile Organic Compounds	1.0
Semivolatile Organic Compounds:	
PAHs	1.0
PCBs	0.3
Pesticides:	
High soil sorption	0.3
Low soil sorption	1.0
Inorganics:	
- Lead - Adults	0.3
- All others	1.0

BW = 70 kg
AT = 9,125 and 25,550 days for adult non-cancer and cancer risks, respectively

SCENARIO 3: Future Use - Construction

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

TRC

where:

CS = Chemical Concentration in Soil down to a depth of 12 feet (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR =	500 mg/day	
ABS =	Volatile Organic Coumpounds	0.50
	Semivolatile Organic Compounds:	
	PAHs	0.05
	PCBs	0.05
	Pesticides:	
	High soil sorption	0.05
	Low soil sorption	0.50
	Inorganics	Negligible
EF =	250 days/year	
ED =	1 year	
BW =	70 kg	
AT =	365 days for non-cancer risks	
	25,550 days for cancer risks	

- Ingestion of Chemicals in Soil

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 480 mg/day
EF = 250 days/year
ED = 1 year

RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3
	Low soil sorption	1.0
	Inorganics:	
	- Lead - Adults	0.3
	- All others	1.0
BW =	70 kg	
AT =	365 days for non-cancer risks	
	25,550 days for cancer risks	

- Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/hour)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 20 m^3/day for adults under moderate exertion
EF = 250 days/year
ED = 1 year
RAF_{ai} = 1.0
BW = 70 kg
AT = 365 days for non-cancer risks
25,550 days for cancer risks

SCENARIO 4: Future Use - Residential

- Dermal Contact with Chemicals in Soil

Equation:

$$\text{Absorbed Dose (mg/kg-day)} = \frac{CS \times CF \times SCR \times ABS \times EF \times ED}{BW \times AT}$$

TRC

where:

CS = Chemical Concentration in Soil (mg/kg)
CF = Conversion Factor (10^{-6} kg/mg)
SCR = Skin Contact Rate (mg/day)
ABS = Absorption Factor (unitless)
EF = Exposure Frequency (events/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

SCR = 500 mg/day
ABS = Volatile Organic Coumpounds: 0.50
Semivolatile Organic Compounds:
PAHs 0.05
PCBs 0.05
Pesticides:
High soil sorption 0.05
Low soil sorption 0.50
Inorganics Negligible
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Soil and House Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CS \times IR \times CF \times EF \times ED \times RAF}{BW \times AT}$$

where:

CS = Chemical Concentration in Soil (mg/kg)
IR = Ingestion Rate (mg soil/day)
CF = Conversion Factor (10^{-6} kg/mg)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
RAF = Relative Absorption Factor (unitless)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 100 mg/day for adults; 200 mg/day for children ages 1-6 years
EF = 350 days/year
ED = 30 years for adults, 6 years for children

TRC

RAF =	Volatile Organic Compounds	1.0
	Semivolatile Organic Compounds:	
	PAHs	1.0
	PCBs	0.3
	Pesticides:	
	High soil sorption	0.3
	Low soil sorption	1.0
	Inorganics	
	- Lead:	
	Children	0.5
	Adults	0.3
	- All others:	1.0

BW = 70 kg for adults, 14.5 kg for children 0-6 years old

AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Outdoor Inhalation of Airborne Chemicals Adsorbed to Dust

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CD \times CS \times IR \times EF \times ED \times RAF_{ai}}{BW \times AT}$$

where:

CD = Ambient Dust Concentration
CS = Contaminant Concentration in Soil (mg/kg)
IR = Inhalation Rate (m^3/hour)
EF = Exposure Frequency (days/year)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)
RAF_{ai} = Relative Absorption Factor for airborne contaminants (unitless)

Specific Parameter Values:

CD = Derived from fugitive dust generation (see below)
IR = 20 m^3/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children
RAF_{ai} = 1.0
BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Ingestion of Chemicals in Drinking Water

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CW \times IR \times EF \times ED}{BW \times AT}$$

where:

CW = Chemical Concentration in Water (mg/liter)
IR = Ingestion Rate (liters/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 2.0 liters/day for adult, 0.75 liters/day children (EPA, 1990b)
EF = 350 days/year
ED = 30 years for adults, 6 years for children
BW = 70 kg for adults, 14.5 kg for children 0-6 years old (EPA, 1990b)
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

- Inhalation of Airborne (Vapor Phase) Chemicals

Equation:

$$\text{Intake (mg/kg-day)} = \frac{CA \times IR \times ET \times EF \times ED}{BW \times AT}$$

where:

CA = Contaminant Concentration in Air (mg/m^3) - derived from volatilization during showering (Andelman, 1985)
IR = Inhalation Rate (m^3/hour)
ET = Exposure Time (hours/day)
EF = Exposure Frequency (days/years)
ED = Exposure Duration (years)
BW = Body Weight (kg)
AT = Averaging Time (period over which exposure is averaged - days)

Specific Parameter Values:

IR = 0.6 m^3/hour light activity assumed (EPA, 1990b)
ET = 0.2 hours/day
EF = 350 days/year
ED = 30 years for adults, 6 years for children

TRC

BW = 70 kg for adults, 14.5 kg for children 0-6 years old
AT = 2,190 and 25,550 days for children non-cancer and cancer risks, respectively
10,950 and 25,550 days for adult non-cancer and cancer risks, respectively

EXPOSURE POINT MODELS

- Model Estimates of Fugitive Dust Generation

Emissions estimates were calculated for activities resulting in soil disturbance, such as heavy equipment operation and wind erosion which may occur over the site during the construction scenario.

The potentially significant components of fugitive dust at this site are:

1) wind erosion of dust from surfaces without vegetative cover, and
2) dust from loading/unloading of excavated soil.

Fugitive dust from wind erosion over exposed soil and from loading/unloading activities was calculated using (EPA, AP-42, 1988). Fugitive dust generation tables showing all model inputs, are presented in Table E-1. The data are summarized in Table E-2. The models are described below.

$$E = a \cdot I \cdot K \cdot C \cdot L \cdot V \cdot A \cdot T$$

where:

E = Emission rate (kg/day)

a = Fraction of total wind losses (wind erosion of soil) that remain suspended
I = Soil erodibility
K = Soil roughness factor
C = Climatic factor
L = Field length factor
V = Vegetative cover factor
A = Area of the site
T = Time conversion factor

Most of these values are specified in USEPA (1988) for worst-case treatments. The climatic factor is read from a map and multiplied by .01 as specified. The variables a and I are determined based on site soil characteristics. The following values were used:

a = 0.01
I = 134 tons $acre^{-1}$ yr^{-1}
K = 1 (worst-case for flat terrain)
C = 0.04
L = .7
V = 1 (no vegetative cover-worst case)
A = 20 acres (Scenario 2), 2 acres (Scenario 4)
T = 1 yr/365 days

The wind erosion emission rate is presented in Table E-2.

The second component is due to loading/unloading of soils due to excavation activities and can be accounted for by:

$$E = \frac{k \cdot (.0016) \cdot (U/2.2)^{1.3}}{(M/2)^{1.4}}$$

and

$$E_{ed} = V \cdot D \cdot E / T$$

where:

E = Emission factor due to loading/dumping (kg/Mg)
k = Particle size multiplier
U = Mean wind speed (m/s)
M = Soil moisture (%)
E_{ed} = Emission rate due to loading/dumping (kg/day)
V = Volume of soil excavated (m^3)
D = Density of soil (Mg/m^3)
T = Time conversion factor (days of excavation)

Using conservative assumptions and appropriate guidelines (EPA, AP-42, 1988):

k = .74
U = 4.74 m/s
M = 5%
V = 3,058 m^3
D = 1.5 Mg/m^3
T = 365 days

The emissions due to loading/dumping are presented in Table E-2.

Total fugitive emissions (from wind activity and loading/dumping) are also presented in Table E-1.

The dust concentration on site is calculated by:

$$Cs = \frac{E}{w \cdot W \cdot H} \cdot C_f$$

where:

Cs = Dust concentration on site (mg/m^3)
E = Total emission rate (kg/day)
w = Wind speed = 4.74 m/s
W = Width (entire site) = 548 m
H = Breathing height = 2 m
C_f = Factors for converting from days to seconds and from kg to mg

Total fugitive dust concentrations on site are shown in Table E-2.

TRC

The concentration of contaminant suspended in air is estimated by a simple ratio of contaminant concentration in soil to fugitive dust emissions:

$$A_c = CC \cdot C_s \cdot C_f$$

where:

A_c = Concentration of suspended contaminant (mg/m^3)
CC = Contaminant concentration in soil (mg/kg)
C_s = Dust concentration on site (mg/m^3)
C_f = Conversion factor (kg/mg)

TABLE E-1
DUST EMISSION RATE
TANK FARM 5

SITE LOCATION AND SCENARIO (#)	VEGETATIVE COVER FACTOR (V')	UNSHELTERED FIELD WIDTH FACTOR (L')	CLIMATIC FACTOR (C)	SURFACE ROUGHNESS FACTOR (K)	SOIL ERODIBILITY (I) (ton/acre/year)	PORTION AS SUSPENDED PARTICULATES (a)	EMISSION FACTOR (E) (ton/acre/yr)	CONVERSION FACTOR (kg/ton)	EMISSION FACTOR (E) (kg/acre/year)	TIME CONSTANT (year/day)	AREA (acres)	WIND EROSION EMISSION RATE (kg/day)
Tank Farm 5 (2)	1	0.7	0.04	1	134	0.010	3.8E-02	907.18	3.4E+01	0.0027	20	1.84E+00
Tank Farm 5 (4)	1	0.7	0.04	1	134	0.010	3.8E-02	907.18	3.4E+01	0.0027	2	1.84E-01

LOADING & DUMPING - DUST EMISSION RATE

SITE LOCATION AND SCENARIO (#)	MOISTURE CONTENT CONSTANT	MATERIAL MOISTURE CONTENT (M) (%)	WIND SPEED CONSTANT	MEAN WIND SPEED (U) (m/s)	PARTICLE SIZE CONSTANT	PARTICLE SIZE MULTIPLIER (k)	EMISSION FACTOR (E) (kg/Mg)	TIME (days)	DENSITY OF SOIL (D) (Mg/m3)	VOLUME OF SOIL EXCAVATED (m3)	LOADING AND DUMPING EMISSION RATE (kg/day)
Tank Farm 5 (2)	2	5	2.2	4.74	1.60E-03	0.74	8.9E-04	365	1.5	3058	1.12E-02

TABLE E-2

FUGITIVE DUST EMISSION
RATES AND AMBIENT CONCENTRATION ESTIMATES

DUST EMISSION RATE (kg/day)

	Scenario 2	Scenario 4
Wind Erosion	1.84E+00	1.84E-01
Loading/Unloading	1.12E-02	NA
Total Dust Emission Rate	1.85E+00	1.84E-01
Dust Concentration (mg/m^3)	3.72E-09	3.69E-10

NA = Not Applicable

TABLE E.1-1
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	ABS. DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	CF (kg/mg)	SCR (mg/dy)	ABS. FACTOR (unit-less)	EXP. FREQ. (dys/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NON-CANCER (days)	A.T. ADULT NON-CANCER (days)	A.T. CANCER (days)
INORGANICS																					
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5263.74	9550.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.18	5.40	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.19	10.10	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.19	19.90	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.16	0.27	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	563.26	864.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.96	14.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.84	15.10	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.97	24.30	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10809.01	25500.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.34	66.60	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1469.77	2960.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	226.97	445.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.78	54.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.30	21.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	221.11	256.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.29	0.39	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.43	0.70	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.56	0.90	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.53	21.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	64.44	83.00	1.0E-06	500	0.00	350	9	30	49.2	70	3285	10950	25550
VOLATILES																					
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
1,1,1-Trichloroethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
1,1,2-Trichloroethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
1,1,2,2-Tetrachloroethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
1,2-Dichloropropane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
1,3-Dichloropropane (cis)	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
1,3-Dichloropropane (trans)	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Benzene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Bromodichloromethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Bromoform	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Carbon Tetrachloride	2.1E-06	1.6E-06	2.9E-06	2.1E-06	2.7E-09	6.2E-09	3.8E-09	8.8E-09	0.0042	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Dibromochloromethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Ethylbenzene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Styrene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Tetrachloroethene	1.9E-06	1.3E-06	2.9E-06	2.1E-06	2.5E-09	5.8E-09	3.8E-09	8.8E-09	0.0039	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Toluene	1.6E-06	1.1E-06	2.9E-06	2.1E-06	2.0E-09	4.7E-09	3.8E-09	8.8E-09	0.0032	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Trichloroethene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	2.2E-09	5.2E-09	3.8E-09	8.8E-09	0.0036	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550
Xylene	1.6E-06	1.1E-06	2.9E-06	2.1E-06	2.0E-09	4.7E-09	3.8E-09	8.8E-09	0.0032	0.0080	1.0E-06	500	0.50	350	9	30	49.2	70	3285	10950	25550

TABLE E.1-1 (cont.)
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	ABS. DOSE CHILD NONCANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NONCANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NONCANCER MAX (mg/kg/day)	ABS. DOSE ADULT NONCANCER MAX (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	ABS. DOSE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX (mg/kg)	CF (kg/mg)	SCR (mg/dy)	ABS. FACTOR (unit-less)	EXP. FREQ. (dys/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NON-CANCER (days)	A.T. ADULT NON-CANCER (days)	A.T. CANCER (days)
SEMIVOLATILES																					
1,4-Dichlorobenzene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
2-Methylnaphthalene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
2,4-Dinitrotoluene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
2,4,6-Trichlorophenol	1.3E-07	8.9E-08	2.0E-07	1.4E-07	1.6E-06	3.8E-06	2.6E-06	6.0E-06	0.26	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
2,6-Dinitrotoluene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
3,3-Dichlorobenzidine	3.0E-07	2.1E-07	3.9E-07	2.8E-07	3.6E-06	8.9E-06	5.1E-06	1.2E-07	0.61	0.81	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Anthracene	1.0E-07	7.0E-08	2.0E-07	1.4E-07	1.3E-06	3.0E-06	2.6E-06	6.0E-06	0.21	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Benzoic Acid	7.8E-07	5.3E-07	1.1E-06	7.5E-07	9.6E-06	2.3E-07	1.4E-07	3.2E-07	1.54	2.20	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Benzo(a)anthracene	1.1E-07	7.8E-08	2.0E-07	1.4E-07	1.4E-06	3.2E-06	2.6E-06	6.0E-06	0.22	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Benzo(a)pyrene	9.6E-08	6.6E-08	2.0E-07	1.4E-07	1.3E-06	2.9E-06	2.6E-06	6.0E-06	0.20	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Benzo(b)fluoranthene	1.3E-07	9.3E-08	2.0E-07	1.4E-07	1.7E-06	4.0E-06	2.6E-06	6.0E-06	0.27	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Benzo(k)fluoranthene	1.1E-07	7.7E-08	2.0E-07	1.4E-07	1.4E-06	3.3E-06	2.6E-06	6.0E-06	0.23	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Bis(2-chloroethyl)ether	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Bis(2ethylhexyl)phthalate	1.0E-07	7.2E-08	2.0E-07	1.4E-07	1.3E-06	3.1E-06	2.6E-06	6.0E-06	0.21	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Butylbenzylphthalate	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Chrysene	1.2E-07	8.1E-08	2.0E-07	1.4E-07	1.5E-06	3.5E-06	2.6E-06	6.0E-06	0.24	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Dibenzo(a,h)anthracene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Di-n-butylphthalate	6.8E-08	4.8E-08	2.0E-07	1.4E-07	8.8E-09	2.1E-06	2.6E-06	6.0E-06	0.14	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Fluoranthene	1.6E-07	1.1E-07	2.0E-07	1.4E-07	2.0E-06	4.8E-06	2.6E-06	6.0E-06	0.33	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Fluorene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Hexachlorobenzene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Hexachlorobutadiene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Hexachloroethane	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Indeno(123cd)pyrene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Isophrone	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Naphthalene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
N-nitroso-di-n-propylamine	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
N-nitrosodiphenylamine	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Pentachlorophenol	6.3E-07	4.4E-07	9.7E-07	6.8E-07	8.1E-06	1.9E-07	1.3E-07	2.9E-07	1.29	2.00	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Phenanthrene	1.1E-07	8.0E-08	2.0E-07	1.4E-07	1.5E-06	3.4E-06	2.6E-06	6.0E-06	0.23	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
Pyrene	1.6E-07	1.0E-07	2.0E-07	1.4E-07	1.9E-06	4.5E-06	2.6E-06	6.0E-06	0.31	0.41	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
PESTICIDES																					
4,4'-DDE	6.6E-08	4.6E-08	1.6E-06	1.1E-06	8.9E-10	2.1E-09	2.0E-09	4.7E-09	0.014	0.032	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550
4,4'-DDT	1.2E-08	8.2E-09	3.6E-06	2.5E-06	1.5E-09	3.5E-09	4.6E-09	1.1E-06	0.024	0.074	1.0E-06	500	0.05	350	9	30	49.2	70	3285	10950	25550

TABLE E.1-2
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	INTAKE CHLD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHLD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHLD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHLD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MEAN (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CF (kg/mg)	EXPOSURE FREQUENCY (days/year)	ED CHILD (years)	ED ADULT (years)	RAF	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NON-CANCER (days)	A.T. ADULT NON-CANCER (days)	A.T. CANCER (days)
INORGANICS																						
Aluminum	1.0E-02	7.2E-03	1.9E-02	1.3E-02	1.3E-03	3.1E-03	2.4E-03	5.6E-03	5283.74	9550.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Antimony	8.2E-06	4.4E-06	1.1E-05	7.4E-06	8.0E-07	1.9E-06	1.4E-06	3.2E-06	3.18	5.40	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Arsenic	4.3E-06	3.0E-06	2.0E-05	1.4E-05	5.5E-07	1.3E-06	2.5E-06	5.9E-06	2.19	10.10	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Barium	2.6E-05	1.6E-05	3.9E-05	2.7E-05	3.3E-06	7.7E-06	5.0E-06	1.2E-05	13.19	19.90	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Beryllium	3.1E-07	2.2E-07	5.3E-07	3.7E-07	4.0E-08	9.4E-08	6.8E-08	1.6E-07	0.16	0.27	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Calcium	1.1E-03	8.0E-04	1.7E-03	1.2E-03	1.5E-04	3.4E-04	2.1E-04	5.0E-04	583.28	954.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Chromium	1.2E-05	8.2E-06	2.7E-05	1.9E-05	1.5E-06	3.5E-06	3.5E-06	8.2E-06	5.98	14.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Cobalt	1.1E-05	8.0E-06	2.6E-05	2.1E-05	1.5E-06	3.4E-06	3.8E-06	8.9E-06	5.84	15.10	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Copper	1.4E-05	9.8E-06	4.7E-05	3.3E-05	1.7E-06	4.1E-06	6.1E-06	1.4E-05	6.97	24.30	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Iron	2.1E-02	1.5E-02	5.0E-02	3.5E-02	2.7E-03	6.2E-03	6.4E-03	1.5E-02	10809.01	26500.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Lead	1.9E-05	7.9E-06	0.0E+00	0.0E+00	2.4E-06	3.4E-06	0.0E+00	0.0E+00	19.34	56.60	100	100	1.0E-06	350	9	30	a	49.2	70	3285	10950	25550
Magnesium	2.9E-03	2.0E-03	5.8E-03	4.1E-03	3.7E-04	8.6E-04	7.4E-04	1.7E-03	1469.77	2980.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Manganese	4.4E-04	3.1E-04	8.7E-04	6.1E-04	5.7E-05	1.3E-04	1.1E-04	2.6E-04	226.97	445.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Mercury	1.5E-06	1.0E-06	1.1E-04	7.4E-05	1.9E-07	4.4E-07	1.4E-05	3.2E-05	0.78	54.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Nickel	1.2E-05	8.6E-06	4.1E-05	2.9E-05	1.6E-06	3.7E-06	5.3E-06	1.2E-05	8.30	21.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Potassium	4.3E-04	3.0E-04	8.0E-04	3.6E-04	5.6E-05	1.3E-04	6.4E-05	1.5E-04	221.11	255.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Selenium	5.7E-07	4.0E-07	7.6E-07	5.3E-07	7.3E-08	1.7E-07	9.8E-08	2.3E-07	0.29	0.39	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Silver	8.3E-07	5.9E-07	1.4E-06	9.6E-07	1.1E-07	2.5E-07	1.6E-07	4.1E-07	0.43	0.70	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Thallium	1.1E-06	8.0E-07	1.8E-06	1.2E-06	1.5E-07	3.4E-07	2.3E-07	5.3E-07	0.56	0.90	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Vanadium	1.5E-05	1.0E-05	4.1E-05	2.9E-05	1.9E-06	4.4E-06	5.3E-06	1.2E-05	7.53	21.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Zinc	1.3E-04	8.8E-05	1.6E-04	1.1E-04	1.6E-05	3.6E-05	2.1E-05	4.9E-05	64.44	83.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
VOLATILES																						
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
1,1,1-Trichloroethane	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
1,1,2-Trichloroethane	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
1,1,2,2-Tetrachloroethane	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
1,2-Dichloropropane	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
1,3-Dichloropropene (cis)	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
1,3-Dichloropropene (trans)	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Benzene	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Bromodichloromethane	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Bromoform	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Carbon Tetrachloride	8.3E-09	5.8E-09	1.2E-08	8.2E-09	1.1E-09	2.5E-09	1.5E-09	3.5E-09	0.0042	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Dibromochloromethane	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Ethylbenzene	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Styrene	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Tetrachloroethene	7.7E-09	5.4E-09	1.2E-08	8.2E-09	9.9E-10	2.3E-09	1.5E-09	3.5E-09	0.0039	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Toluene	6.3E-09	4.4E-09	1.2E-08	8.2E-09	8.1E-10	1.9E-09	1.5E-09	3.5E-09	0.0032	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Trichloroethene	7.0E-09	4.8E-09	1.2E-08	8.2E-09	8.8E-10	2.1E-09	1.5E-09	3.5E-09	0.0036	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Xylene	6.3E-09	4.4E-09	1.2E-08	8.2E-09	8.1E-10	1.9E-09	1.5E-09	3.5E-09	0.0032	0.0080	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550

TABLE E.1-2 (cont.)
SCENARIO 1
INGESTION OF CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	INTAKE CHLD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHLD NONCANCER MAX (mg/kg/day)	INTAKE ADULT NONCANCER MAX (mg/kg/day)	INTAKE CHLD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHLD CANCER MAX (mg/kg/day)	INTAKE ADULT CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MEAN (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CF (kg/mg)	EXPOSURE FREQUENCY (days/year)	ED CHILD (years)	ED ADULT (years)	RAF	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NON-CANCER (days)	A.T. ADULT NON-CANCER (days)	A.T. CANCER (days)
SEMIVOLATILES																						
1,4-Dichlorobenzene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
2-Methylnaphthalene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
2,4-Dinitrotoluene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
2,4,6-Trichlorophenol	6.1E-07	3.6E-07	6.0E-07	5.6E-07	6.6E-08	1.5E-07	1.0E-07	2.4E-07	0.26	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
2,6-Dinitrotoluene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
3,3-Dichlorobenzidine	1.2E-06	6.3E-07	1.6E-06	1.1E-06	1.5E-07	3.6E-07	2.0E-07	4.8E-07	0.61	0.81	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Anthracene	4.0E-07	2.8E-07	6.0E-07	5.6E-07	5.1E-08	1.2E-07	1.0E-07	2.4E-07	0.21	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Benzoic Acid	3.0E-06	2.1E-06	4.3E-06	3.0E-06	3.8E-07	9.0E-07	5.6E-07	1.3E-06	1.54	2.20	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Benzo(a)anthracene	4.2E-07	3.0E-07	6.0E-07	5.6E-07	5.5E-08	1.3E-07	1.0E-07	2.4E-07	0.22	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Benzo(a)pyrene	3.9E-07	2.7E-07	6.0E-07	5.6E-07	5.0E-08	1.2E-07	1.0E-07	2.4E-07	0.20	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Benzo(b)fluoranthene	5.3E-07	3.7E-07	6.0E-07	5.6E-07	6.8E-08	1.6E-07	1.0E-07	2.4E-07	0.20	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Benzo(k)fluoranthene	4.4E-07	3.1E-07	6.0E-07	5.6E-07	5.7E-08	1.3E-07	1.0E-07	2.4E-07	0.27	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Bis(2-chloroethyl)ether	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Bis(2ethylhexyl)phthalate	4.1E-07	2.9E-07	6.0E-07	5.6E-07	5.3E-08	1.2E-07	1.0E-07	2.4E-07	0.21	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Butylbenzylphthalate	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Chrysene	4.6E-07	3.3E-07	6.0E-07	5.6E-07	6.0E-08	1.4E-07	1.0E-07	2.4E-07	0.24	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Dibenzo(a,h)anthracene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Di-n-butylphthalate	2.7E-07	1.9E-07	6.0E-07	5.6E-07	3.5E-08	8.2E-08	1.0E-07	2.4E-07	0.14	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Fluoranthene	5.3E-07	4.6E-07	6.0E-07	5.6E-07	8.2E-08	1.8E-07	1.0E-07	2.4E-07	0.33	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Fluorene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Hexachlorobenzene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Hexachlorobutadiene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Hexachloroethane	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Indeno(123cd)pyrene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Isophrone	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Naphthalene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
N-nitroso-di-n-propylamine	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
N-nitrosodiphenylamine	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Pentachlorophenol	2.8E-06	1.8E-06	3.9E-06	2.7E-06	3.2E-07	7.6E-07	5.0E-07	1.2E-06	1.29	2.00	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Phenanthrene	4.8E-07	3.2E-07	6.0E-07	5.6E-07	5.6E-08	1.4E-07	1.0E-07	2.4E-07	0.23	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
Pyrene	6.0E-07	4.2E-07	6.0E-07	5.6E-07	7.7E-08	1.8E-07	1.0E-07	2.4E-07	0.31	0.41	100	100	1.0E-06	350	9	30	1.0	49.2	70	3285	10950	25550
PESTICIDES																						
4,4'-DDE	9.3E-09	5.8E-09	1.8E-08	1.3E-08	1.1E-09	2.5E-09	2.4E-09	5.6E-09	0.014	0.032	100	100	1.0E-06	350	9	30	0.3	49.2	70	3285	10950	25550
4,4'-DDT	1.4E-08	9.8E-09	4.3E-08	3.0E-08	1.8E-09	4.2E-09	5.6E-09	1.3E-08	0.024	0.074	100	100	1.0E-06	350	9	30	0.3	49.2	70	3285	10950	25550

TABLE E.1 - 3
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SURFACE WATER
TANK FARM FIVE

COMPOUND NAME	ABSORBED DOSE CHILD NONCANCER (mg/kg/day)	ABSORBED DOSE ADULT NONCANCER (mg/kg/day)	ABSORBED DOSE CHILD CANCER (mg/kg/day)	ABSORBED DOSE ADULT CANCER (mg/kg/day)	CONC. IN WATER (mg/L)	SKIN SURF. AREA CHILD (cm2)	SKIN SURF. AREA ADULT (cm2)	PERM. CONS. (cm/hr)	EXP. TIME (hrs/dy)	EXP. FREQ. (dys/yr)	EXP. DUR. CHILD (years)	EXP. DUR. ADULT (years)	CONVERSION FACTOR (0.001 L/cm3)	BODY WT. CHILD (kg)	BODY WT. ADULT (kg)	AVE. TM. CHILD NON-CANCER (days)	AVE. TM. ADULT NON-CANCER (days)	AVE. TM. (CANCER) (days)
INORGANICS																		
Aluminum	7.26E-05	4.13E-05	8.33E-06	1.77E-05	0.16	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Arsenic	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Barium	1.25E-05	7.08E-06	1.60E-06	3.04E-06	0.028	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Beryllium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Cadmium	1.47E-06	8.36E-07	1.88E-07	3.58E-07	0.0033	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Calcium	1.62E-02	9.19E-03	2.08E-03	3.94E-03	36.30	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Chromium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Cobalt	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Copper	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Iron	8.46E-04	4.81E-04	1.08E-04	2.06E-04	1.90	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Lead	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Magnesium	3.65E-03	2.08E-03	4.69E-04	8.90E-04	8.20	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Manganese	1.35E-04	7.70E-05	1.74E-05	3.30E-05	0.30	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Nickel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Potassium	4.25E-03	2.42E-03	5.47E-04	1.04E-03	9.55	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Selenium	8.91E-07	5.08E-07	1.15E-07	2.17E-07	0.0020	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Silver	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Sodium	4.76E-03	2.71E-03	6.13E-04	1.16E-03	10.70	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Thallium	1.78E-06	1.01E-06	2.29E-07	4.34E-07	0.0040	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Vanadium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Zinc	2.90E-05	1.65E-05	3.73E-06	7.08E-06	0.07	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
VOLATILES																		
1,1 - Dichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
1,1,1 - Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
1,1,2 - Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
1,1,2,2 - Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
1,2 - Dichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
1,2 - Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
1,3 - Dichloropropene (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
1,3 - Dichloropropene (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Carbon Tetrachloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Chloroform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Ethylbenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Tetrachloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Toluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Vinyl acetate	4.45E-06	2.53E-06	5.73E-07	1.06E-06	0.01	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Xylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550

TABLE E.1-3 (cont.)
SCENARIO 1
DERMAL CONTACT WITH CHEMICALS IN SURFACE WATER
TANK FARM FIVE

COMPOUND NAME	ABSORBED DOSE CHILD NONCANCER (mg/kg/day)	ABSORBED DOSE ADULT NONCANCER (mg/kg/day)	ABSORBED DOSE CHILD CANCER (mg/kg/day)	ABSORBED DOSE ADULT CANCER (mg/kg/day)	CONC. IN WATER (mg/L)	SKIN SURF. AREA CHILD (cm2)	SKIN SURF. AREA ADULT (cm2)	PERM. CONS. (cm/hr)	EXP. TIME (hrs/dy)	EXP. FREQ. (dys/yr)	EXP. DUR. CHILD (years)	EXP. DUR. ADULT (years)	CONVERSION FACTOR (0.001 L/cm3)	BODY WT. CHILD (kg)	BODY WT. ADULT (kg)	AVE. TM. CHILD NON-CANCER (days)	AVE. TM. ADULT NON-CANCER (days)	AVE. TM. (CANCER) (days)
SEMIVOLATILES																		
1,4-Dichlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
2-Methylnaphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
2,4-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
2,4,6-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
2,6-Dinitrotoluene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
3,3-Dichlorobenzidine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Benzoic Acid	2.23E-05	1.27E-05	2.86E-05	5.42E-05	0.05	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Benzo(a)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Benzo(b)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Benzo(k)fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Bis(2-chloroethyl)ether	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Bis(2ethylhexyl)phthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Butylbenzylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Chrysene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Dibenzo(a,h)anthracene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Di-n-butylphthalate	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Fluoranthene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Fluorene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Hexachlorobenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Hexachlorobutadiene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Hexachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Indeno(123cd)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Isophrone	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Naphthalene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
N-nitroso-di-n-propylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
N-nitrosodiphenylamine	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Pentachlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Phenanthrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
Pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
PESTICIDES																		
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	6800	5500	8.4E-04	4	350	9	30	0.001	49.2	70	3285	10950	25550

TABLE E.1-4
SCENARIO 1
INGESTION OF CHEMICALS IN SURFACE WATER
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER (mg/kg/day)	INTAKE CHILD CANCER (mg/kg/day)	CONC. IN WATER (mg/liter)	CR (liters/hour)	ET (hours/day)	EF (days/year)	ED (years)	BW (kg)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS										
Aluminum	7.8E-05	1.3E-05	0.163	0.05	1.0	150	12	43.2	4380	25550
Antimony	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Arsenic	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Barium	1.3E-05	2.3E-06	0.028	0.05	1.0	150	12	43.2	4380	25550
Beryllium	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Cadmium	1.6E-06	2.7E-07	0.003	0.05	1.0	150	12	43.2	4380	25550
Calcium	1.7E-02	3.0E-03	36.300	0.05	1.0	150	12	43.2	4380	25550
Chromium	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Cobalt	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Copper	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Cyanide	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Iron	9.0E-04	1.5E-04	1.900	0.05	1.0	150	12	43.2	4380	25550
Lead	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Magnesium	3.9E-03	6.7E-04	8.200	0.05	1.0	150	12	43.2	4380	25550
Manganese	1.4E-04	2.5E-05	0.304	0.05	1.0	150	12	43.2	4380	25550
Mercury	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Nickel	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Potassium	4.5E-03	7.8E-04	9.550	0.05	1.0	150	12	43.2	4380	25550
Selenium	9.5E-07	1.6E-07	0.002	0.05	1.0	150	12	43.2	4380	25550
Silver	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Sodium	5.1E-03	8.7E-04	10.700	0.05	1.0	150	12	43.2	4380	25550
Thallium	1.9E-06	3.3E-07	0.004	0.05	1.0	150	12	43.2	4380	25550
Vanadium	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Zinc	3.1E-05	5.3E-06	0.065	0.05	1.0	150	12	43.2	4380	25550
VOLATILES										
1,1-Dichloroethane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
1,1,1-Trichloroethane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
1,1,2-Trichloroethane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
1,2-Dichloropropane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Benzene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Bromodichloromethane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Bromoform	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Carbon Tetrachloride	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Chloroform	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Dibromochloromethane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Ethylbenzene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Styrene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Tetrachloroethene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Toluene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Trichloroethene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Vinyl acetate	4.8E-06	8.2E-07	0.010	0.05	1.0	150	12	43.2	4380	25550
Xylene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
SEMIVOLATILES										
Fluorene										
1,4-Dichlorobenzene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
2-Methylnaphthalene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
2,4-Dinitrotoluene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
2,6-Dinitrotoluene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
3,3-Dichlorobenzidine	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Anthracene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Benzoic Acid	2.4E-05	4.1E-06	0.050	0.05	1.0	150	12	43.2	4380	25550
Benzo(a)anthracene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Benzo(a)pyrene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Benzo(b)fluoranthene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Benzo(k)fluoranthene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Butylbenzylphthalate	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Chrysene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Di-n-butylphthalate	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Fluoranthene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Fluorene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Hexachlorobenzene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Hexachlorobutadiene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Hexachloroethane	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Indeno(123cd)pyrene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Isophrone	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Naphthalene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
N-nitrosodiphenylamine	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Pentachlorophenol	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Phenanthrene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
Pyrene	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
PESTICIDES										
4,4'-DDE	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550
4,4'-DDT	0.0E+00	0.0E+00	NA	0.05	1.0	150	12	43.2	4380	25550

TABLE E.1-5
SCENARIO I
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAXIMUM	CHEM. RISK ADULT MAXIMUM	TOTAL PATHWAY RISK	TOTAL EXPOSURE RISK	
														2.4E-07	7.4E-06	CHLD MEAN
														5.7E-07	1.7E-05	ADULT MEAN
														3.3E-07	1.5E-05	CHLD MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL														7.6E-07	3.4E-05	ADULT MAX
VOLATILES																
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	NA	NA	NA			
1,1,1-Trichloroethane	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
1,1,2-Trichloroethane	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	1.3E-10	3.0E-10	2.1E-10	5.0E-10			
1,1,2,2-Tetrachloroethane	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	4.6E-10	1.0E-09	7.5E-10	1.8E-09			
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
1,2-Dichloropropane	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	6.80E-02	B2	Liver	Gavage/IRIS	1.6E-10	3.6E-10	2.6E-10	6.0E-10			
1,3-Dichloropropane (cis)	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	4.0E-10	9.4E-10	6.6E-10	1.6E-09			
1,3-Dichloropropane (trans)	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	4.0E-10	9.4E-10	6.6E-10	1.6E-09			
Benzene	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	6.5E-11	1.5E-10	1.1E-10	2.6E-10			
Bromodichloromethane	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	1.30E-01	B2	Hepatocellular adenoma	Gavage/IRIS	2.9E-10	6.8E-10	4.8E-10	1.1E-09			
Bromoform	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	1.8E-11	4.1E-11	3.0E-11	7.0E-11			
Carbon Tetrachloride	2.7E-09	6.2E-09	3.6E-09	8.6E-09	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	3.5E-10	8.1E-10	4.8E-10	1.1E-09			
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8.10E-03	B2	Kidney tumors	Oral/IRIS	NA	NA	NA	NA			
Dibromochloromethane	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	1.9E-10	4.4E-10	3.2E-10	7.4E-10			
Ethylbenzene	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Styrene	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	6.7E-11	1.6E-10	1.1E-10	2.6E-10			
Tetrachloroethene	2.5E-09	5.8E-09	3.6E-09	8.6E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	1.3E-10	2.9E-10	1.9E-10	4.5E-10			
Toluene	2.0E-09	4.7E-09	3.6E-09	8.6E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Trichloroethene	2.2E-09	5.2E-09	3.6E-09	8.6E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	2.5E-11	5.8E-11	4.1E-11	9.7E-11			
Xylene	2.0E-09	4.7E-09	3.6E-09	8.6E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
SEMIVOLATILES																
1,4-Dichlorobenzene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	2.40E-02	C	Liver	Gavage/IRIS	4.6E-10	1.1E-09	8.2E-10	1.4E-09			
2-Methylnaphthalene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
2,4-Dinitrotoluene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	1.3E-08	3.0E-08	1.7E-08	4.1E-08			
2,4,6-Trichlorophenol	1.6E-08	3.6E-08	2.6E-08	6.0E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	1.8E-10	4.2E-10	2.8E-10	6.6E-10			
2,6-Dinitrotoluene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	1.3E-08	3.0E-08	1.7E-08	4.1E-08			
3,3-Dichlorobenzidine	3.6E-08	8.6E-08	5.1E-08	1.2E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.7E-08	4.0E-08	2.3E-08	5.3E-08			
Anthracene	1.3E-08	3.0E-08	2.6E-08	6.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Benzoic Acid	9.6E-08	2.3E-07	1.4E-07	3.2E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Benzo(a)anthracene	1.4E-08	3.2E-08	2.6E-08	6.0E-08	No	NA	B2	Liver,lung,skin	IRIS	NA	NA	NA	NA			
Benzo(a)pyrene	1.3E-08	2.9E-08	2.6E-08	6.0E-08	No	NA	B2	Stomach, lung	IRIS	NA	NA	NA	NA			
Benzo(b)fluoranthene	1.7E-08	4.0E-08	2.6E-08	6.0E-08	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA	NA	NA			
Benzo(k)fluoranthene	1.4E-08	3.3E-08	2.6E-08	6.0E-08	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA	NA	NA			
Bis(2-chloroethyl)ether	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	1.10E+00	B2	Liver	IRIS	2.1E-08	4.9E-08	2.8E-08	6.6E-08			
Bis(2ethylhexyl)phthalate	1.3E-08	3.1E-08	2.6E-08	6.0E-08	No	1.40E-02	B2	Liver	IRIS	1.8E-10	4.3E-10	3.6E-10	8.4E-10			
Butylbenzylphthalate	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA			
Chrysene	1.5E-08	3.6E-08	2.6E-08	6.0E-08	No	NA	B2	Malignant lymphoma	IRIS	NA	NA	NA	NA			
Dibenzo(a,h)anthracene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	NA	B2	Lung, mammary	IRIS	NA	NA	NA	NA			
Di-n-butylphthalate	8.6E-09	2.1E-08	2.6E-08	6.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Fluoranthene	2.0E-08	4.8E-08	2.6E-08	6.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Fluorene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Hexachlorobenzene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	3.1E-08	7.2E-08	4.1E-08	9.6E-08			
Hexachlorobutadiene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	1.5E-09	3.5E-09	2.0E-09	4.7E-09			
Hexachloroethane	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	2.7E-10	6.3E-10	3.6E-10	8.4E-10			
Indeno(123cd)pyrene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	NA	B2	Lung, skin	IRIS	NA	NA	NA	NA			
Isophrone	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	7.6E-11	1.8E-10	1.1E-10	2.5E-10			
Naphthalene	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
N-nitroso-di-n-propylamine	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	1.3E-07	3.1E-07	1.8E-07	4.2E-07			
N-nitrosodiphenylamine	1.6E-08	4.6E-08	2.6E-08	6.0E-08	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	9.4E-11	2.2E-10	1.3E-10	2.9E-10			
Pentachlorophenol	8.1E-08	1.9E-07	1.3E-07	2.9E-07	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	9.7E-09	2.3E-08	1.5E-08	3.5E-08			
Phenanthrene	1.5E-08	3.4E-08	2.6E-08	6.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Pyrene	1.9E-08	4.5E-08	2.6E-08	6.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
PESTICIDES																
4,4'-DDE	9.9E-10	2.1E-09	2.0E-09	4.7E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	3.0E-10	7.1E-10	6.8E-10	1.6E-09			
4,4'-DDT	1.5E-09	3.5E-09	4.6E-09	1.1E-08	No	3.40E-01	B2	Liver	Diet/IRIS	5.1E-10	1.2E-09	1.6E-09	3.7E-09			

TABLE E.1-6
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAXIMUM	CHEM. RISK ADULT MAXIMUM	TOTAL PATHWAY RISK
														7.2E-06 || CHILD MEAN
														1.7E-05 || ADULT MEAN
														1.4E-05 || CHILD MAXIMUM
														3.3E-05 || ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL														
INORGANICS														
Aluminum	1.3E-03	3.1E-03	2.4E-03	5.6E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Antimony	8.0E-07	1.8E-06	1.4E-06	3.2E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Arsenic	5.5E-07	1.3E-06	2.5E-06	5.9E-06	No	1.75E+00	A	Skin	Water/IRIS	9.6E-07	2.2E-06	4.4E-06	1.0E-05	
Barium	3.3E-06	7.7E-06	5.0E-06	1.2E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Beryllium	4.0E-08	9.4E-08	6.8E-08	1.6E-07	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	1.7E-07	4.0E-07	2.9E-07	6.8E-07	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Calcium	1.5E-04	3.4E-04	2.1E-04	5.0E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Chromium	1.5E-06	3.5E-06	3.5E-06	8.2E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Cobalt	1.5E-06	3.4E-06	3.9E-06	8.9E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Copper	1.7E-06	4.1E-06	6.1E-06	1.4E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Iron	2.7E-03	6.2E-03	6.4E-03	1.5E-02	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Lead	2.4E-06	3.4E-06	0.0E+00	0.0E+00	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	NA	NA	
Magnesium	3.7E-04	8.6E-04	7.4E-04	1.7E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Manganese	5.7E-05	1.3E-04	1.1E-04	2.6E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Mercury	1.6E-07	4.4E-07	1.4E-06	3.2E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Nickel	1.6E-06	3.7E-06	5.3E-06	1.2E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Potassium	5.5E-05	1.3E-04	8.4E-05	1.9E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Selenium	7.3E-08	1.7E-07	9.8E-08	2.3E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Silver	1.1E-07	2.6E-07	1.8E-07	4.1E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Thallium	1.5E-07	3.4E-07	2.3E-07	5.3E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Vanadium	1.9E-06	4.4E-06	5.3E-06	1.2E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Zinc	1.6E-05	3.8E-05	2.1E-05	4.8E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Hemangiosarcoma, mammary	NA/IRIS,HEAST	NA	NA	NA	NA	
1,1,1-Trichloroethane	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
1,1,2-Trichloroethane	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	5.1E-11	1.2E-10	8.6E-11	2.0E-10	
1,1,2,2-Tetrachloroethane	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	1.8E-10	4.2E-10	3.0E-10	7.0E-10	
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
1,2-Dichloropropane	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	6.80E-02	B2	Liver	Gavage/IRIS	6.1E-11	1.4E-10	1.0E-10	2.4E-10	
1,3-Dichloropropene (cis)	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	1.80E-01	B2	Stomach, liver, adrenal, thyroid	Gavage/HEAST	1.6E-10	3.8E-10	2.7E-10	6.3E-10	
1,3-Dichloropropene (trans)	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	1.80E-01	B2	Stomach, liver, adrenal, thyroid	Gavage/HEAST	1.6E-10	3.8E-10	2.7E-10	6.3E-10	
Benzene	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	2.6E-11	6.1E-11	4.4E-11	1.0E-10	
Bromodichloromethane	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	1.2E-10	2.7E-10	2.0E-10	4.6E-10	
Bromoform	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	7.1E-12	1.7E-11	1.2E-11	2.8E-11	
Carbon Tetrachloride	1.1E-09	2.6E-09	1.5E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	1.4E-10	3.2E-10	2.0E-10	4.6E-10	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	NA	NA	NA	NA	
Dibromochloromethane	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	7.5E-11	1.8E-10	1.3E-10	3.0E-10	
Ethylbenzene	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Styrene	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	2.7E-11	6.3E-11	4.5E-11	1.1E-10	
Tetrachloroethene	9.8E-10	2.3E-09	1.5E-09	3.5E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	5.0E-11	1.2E-10	7.7E-11	1.8E-10	
Toluene	8.1E-10	1.9E-09	1.5E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Trichloroethene	8.8E-10	2.1E-09	1.5E-09	3.5E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	9.8E-12	2.3E-11	1.7E-11	3.9E-11	
Xylene	8.1E-10	1.9E-09	1.5E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	

TABLE E.1-6 (cont)
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAXIMUM	CHEM. RISK ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL													
SEMIVOLATILES													
1,4-Dichlorobenzene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	2.40E-02	C	Liver	Gavage/IRIS	1.8E-09	4.3E-09	2.5E-09	5.8E-09
2-Methylnaphthalene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	5.2E-08	1.2E-07	7.0E-08	1.6E-07
2,4,6-Trichlorophenol	6.5E-08	1.5E-07	1.0E-07	2.4E-07	No	1.10E-02	B2	Leukemia	Diet/IRIS	7.2E-10	1.7E-09	1.1E-09	2.6E-09
2,6-Dinitrotoluene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	5.2E-08	1.2E-07	7.0E-08	1.6E-07
3,3-Dichlorobenzidine	1.5E-07	3.6E-07	2.0E-07	4.8E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	6.8E-08	1.6E-07	9.1E-08	2.1E-07
Anthracene	5.1E-08	1.2E-07	1.0E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzoic Acid	3.8E-07	9.0E-07	5.5E-07	1.3E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(a)anthracene	5.6E-08	1.3E-07	1.0E-07	2.4E-07	No	1.15E+01	B2	Liver,lung,skin	IRIS	6.3E-07	1.5E-06	1.2E-06	2.8E-06
Benzo(a)pyrene	5.0E-08	1.2E-07	1.0E-07	2.4E-07	No	1.15E+01	B2	Stomach, lung	IRIS	5.8E-07	1.4E-06	1.2E-06	2.8E-06
Benzo(b)fluoranthene	6.8E-08	1.6E-07	1.0E-07	2.4E-07	No	1.15E+01	B2	Lung,thorax,skin	IRIS	7.8E-07	1.8E-06	1.2E-06	2.8E-06
Benzo(k)fluoranthene	5.7E-08	1.3E-07	1.0E-07	2.4E-07	No	1.15E+01	B2	Lung,thorax,skin	IRIS	6.5E-07	1.5E-06	1.2E-06	2.8E-06
Bis(2-chloroethyl)ether	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	1.10E+00	B2	Liver	IRIS	8.4E-08	2.0E-07	1.1E-07	2.6E-07
Bis(ethylhexyl)phthalate	5.3E-08	1.2E-07	1.0E-07	2.4E-07	No	1.40E-02	B2	Liver	IRIS	7.4E-10	1.7E-09	1.4E-09	3.4E-09
Butylbenzylphthalate	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA
Chrysene	6.0E-08	1.4E-07	1.0E-07	2.4E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	6.9E-07	1.6E-06	1.2E-06	2.8E-06
Dibenzo(a,h)anthracene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	1.15E+01	B2	Lung, mammary	IRIS	8.8E-07	2.1E-06	1.2E-06	2.8E-06
Di-n-butylphthalate	3.5E-08	8.2E-08	1.0E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluoranthene	8.2E-08	1.9E-07	1.0E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluorene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Hexachlorobenzene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	1.2E-07	2.9E-07	1.8E-07	3.9E-07
Hexachlorobutadiene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	6.0E-09	1.4E-08	9.0E-09	1.9E-08
Hexachloroethane	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	1.1E-09	2.5E-09	1.4E-09	3.4E-09
Indeno(123cd)pyrene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	1.15E+01	B2	Lung, skin	IRIS	8.8E-07	2.1E-06	1.2E-06	2.8E-06
Isophrone	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	3.1E-10	7.3E-10	4.2E-10	9.9E-10
Naphthalene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitroso-di-n-propylamine	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	5.4E-07	1.3E-06	7.2E-07	1.7E-06
N-nitrosodiphenylamine	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	3.7E-10	8.8E-10	5.0E-10	1.2E-09
Pentachlorophenol	3.2E-07	7.6E-07	5.0E-07	1.2E-06	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	3.9E-08	9.1E-08	6.0E-08	1.4E-07
Phenanthrene	5.8E-08	1.4E-07	1.0E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Pyrene	7.7E-08	1.8E-07	1.0E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
PESTICIDES													
4,4'-DDE	1.1E-09	2.5E-09	2.4E-09	5.6E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	3.6E-10	8.5E-10	8.2E-10	1.9E-09
4,4'-DDT	1.9E-09	4.2E-09	5.6E-09	1.3E-08	No	3.40E-01	B2	Liver	Diet/IRIS	6.1E-10	1.4E-09	1.9E-09	4.4E-09

TABLE E.1-7
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD (mg/kg/day)	CDI ADULT (mg/kg/day)	CDI ADJUSTED ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	TOTAL PATHWAY RISK	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SURFACE WATER										NA NA	CHILD ADULT
VOLATILES											
1,1-Dichloroethane	0.0E+00	0.0E+00	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	NA		
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	NA	NA		
1,2-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver	Gavage/IRIS	NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	NA	NA		
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	NA	NA		
Bromoform	0.0E+00	0.0E+00	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	NA	NA		
Carbon Tetrachloride	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	NA	NA		
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA		
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	No	5.10E-02	B2	Liver	Gavage/HEAST	NA	NA		
Toluene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA		
Vinyl acetate	5.7E-07	1.1E-06	No	NA			NA/IRIS,HEAST	NA	NA		
Xylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
SEMIVOLATILES											
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	2.40E-02	C	Liver	Gavage/IRIS	NA	NA		
2-Methylnaphthalene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA		
2,4-Dinitrotoluene	0.0E+00	0.0E+00	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	NA	NA		
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	No	1.10E-02	B2	Leukemia	Diet/IRIS	NA	NA		
2,6-Dinitrotoluene	0.0E+00	0.0E+00	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	NA	NA		
3,3-Dichlorobenzidine	0.0E+00	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	NA	NA		
Anthracene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Benzoic Acid	2.9E-06	5.4E-06	No	NA			NA/IRIS,HEAST	NA	NA		
Benzo(a)anthracene	0.0E+00	0.0E+00	No	NA	B2	Liver,lung,skin	IRIS	NA	NA		
Benzo(a)pyrene	0.0E+00	0.0E+00	No	NA	B2	Stomach, lung	IRIS	NA	NA		
Benzo(b)fluoranthene	0.0E+00	0.0E+00	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA		
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA		
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	No	1.10E+00	B2	Liver	IRIS	NA	NA		
Bis(2ethylhexyl)phthalate	0.0E+00	0.0E+00	No	1.40E-02	B2	Liver	IRIS	NA	NA		
Butylbenzylphthalate	0.0E+00	0.0E+00	No	NA	C	Leukemia	Diet/IRIS	NA	NA		
Chrysene	0.0E+00	0.0E+00	No	NA	B2	Malignant lymphoma	IRIS	NA	NA		
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	NA	B2	Lung, mammary	IRIS	NA	NA		
Di-n-butylphthalate	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Fluoranthene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Fluorene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Hexachlorobenzene	0.0E+00	0.0E+00	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	NA	NA		
Hexachlorobutadiene	0.0E+00	0.0E+00	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	NA	NA		
Hexachloroethane	0.0E+00	0.0E+00	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	NA	NA		
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	NA	B2	Lung, skin	IRIS	NA	NA		
Isophrone	0.0E+00	0.0E+00	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	NA	NA		
Naphthalene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	NA	NA		
N-nitrosodiphenylamine	0.0E+00	0.0E+00	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	NA	NA		
Pentachlorophenol	0.0E+00	0.0E+00	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	NA	NA		
Phenanthrene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Pyrene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
PESTICIDES											
4,4'-DDE	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA		
4,4'-DDT	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver	Diet/IRIS	NA	NA		

TABLE E.1-8
SCENARIO 1
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK CHILD	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SURFACE WATER								NA
INORGANICS								
Aluminum	1.3E-05	No	NA	D		NA/IRIS,HEAST	NA	
Antimony	0.0E+00	No	NA			NA/IRIS,HEAST	NA	
Arsenic	0.0E+00	No	1.75E+00	A	Skin	Water/IRIS	NA	
Barium	2.3E-06	No	NA			NA/IRIS,HEAST	NA	
Beryllium	0.0E+00	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	NA	
Cadmium	2.7E-07	No	NA			NA/IRIS,HEAST	NA	
Calcium	3.0E-03	No	NA			NA/IRIS,HEAST	NA	
Chromium	0.0E+00	No	NA			NA/IRIS,HEAST	NA	
Cobalt	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Copper	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Cyanide	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Iron	1.5E-04	No	NA			NA/IRIS,HEAST	NA	
Lead	0.0E+00	No	NA	B2	Renal tumors	Oral/IRIS	NA	
Magnesium	6.7E-04	No	NA			NA/IRIS,HEAST	NA	
Manganese	2.5E-05	No	NA	D		NA/IRIS,HEAST	NA	
Mercury	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Nickel	0.0E+00	No	NA			NA/IRIS,HEAST	NA	
Potassium	7.8E-04	No	NA			NA/IRIS,HEAST	NA	
Selenium	1.8E-07	No	NA	D		NA/IRIS,HEAST	NA	
Silver	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Sodium	8.7E-04	No	NA			NA/IRIS,HEAST	NA	
Thallium	3.3E-07	No	NA			NA/IRIS,HEAST	NA	
Vanadium	0.0E+00	No	NA			NA/IRIS,HEAST	NA	
Zinc	5.3E-06	No	NA			NA/IRIS,HEAST	NA	
VOLATILES								
1,1-Dichloroethane	0.0E+00	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	
1,1,1-Trichloroethane	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
1,1,2-Trichloroethane	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	NA	
1,2-Dichloroethene	0.0E+00	No	NA			NA/IRIS,HEAST	NA	
1,2-Dichloropropane	0.0E+00	No	6.80E-02	B2	Liver	Gavage/IRIS	NA	
1,3-Dichloropropene (cis)	0.0E+00	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	NA	
1,3-Dichloropropene (trans)	0.0E+00	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	NA	
Benzene	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	
Bromodichloromethane	0.0E+00	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	NA	
Bromoform	0.0E+00	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	NA	
Carbon Tetrachloride	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	NA	
Chloroform	0.0E+00	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	NA	
Dibromochloromethane	0.0E+00	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	
Ethylbenzene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Styrene	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	
Tetrachloroethene	0.0E+00	No	5.10E-02	B2	Liver	Gavage/HEAST	NA	
Toluene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Trichloroethene	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	
Vinyl acetate	8.2E-07	No	NA			NA/IRIS,HEAST	NA	
Xylene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
SEMIVOLATILES								
1,4-Dichlorobenzene	0.0E+00	No	2.40E-02	C	Liver	Gavage/IRIS	NA	
2-Methylnaphthalene	0.0E+00	No	NA			NA/IRIS,HEAST	NA	
2,4-Dinitrotoluene	0.0E+00	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	NA	
2,4,6-Trichlorophenol	0.0E+00	No	1.10E-02	B2	Leukemia	Diet/IRIS	NA	
2,6-Dinitrotoluene	0.0E+00	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	NA	
3,3-Dichlorobenzidine	0.0E+00	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	NA	
Anthracene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Benzoic Acid	4.1E-06	No	NA			NA/IRIS,HEAST	NA	
Benzo(a)anthracene	0.0E+00	No	1.15E+01	B2	Liver,lung,skin	IRIS	NA	
Benzo(a)pyrene	0.0E+00	No	1.15E+01	B2	Stomach, lung	IRIS	NA	
Benzo(b)fluoranthene	0.0E+00	No	1.15E+01	B2	Lung,thorax,skin	IRIS	NA	
Benzo(k)fluoranthene	0.0E+00	No	1.15E+01	B2	Lung,thorax,skin	IRIS	NA	
Bis(2-chloroethyl)ether	0.0E+00	No	1.10E+00	B2	Liver	IRIS	NA	
Bis(2ethylhexyl)phthalate	0.0E+00	No	1.40E-02	B2	Liver	IRIS	NA	
Butylbenzylphthalate	0.0E+00	No	NA	C	Leukemia	Diet/IRIS	NA	
Chrysene	0.0E+00	No	1.15E+01	B2	Malignant lymphoma	IRIS	NA	
Dibenzo(a,h)anthracene	0.0E+00	No	1.15E+01	B2	Lung, mammary	IRIS	NA	
Di-n-butylphthalate	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Fluoranthene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Fluorene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Hexachlorobenzene	0.0E+00	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	NA	
Hexachlorobutadiene	0.0E+00	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	NA	
Hexachloroethane	0.0E+00	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	NA	
Indeno(123cd)pyrene	0.0E+00	No	1.15E+01	B2	Lung, skin	IRIS	NA	
Isophrone	0.0E+00	No	4.10E-03	C	Preputial gland,kidney	Gavage/IRIS	NA	
Naphthalene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
N-nitroso-di-n-propylamine	0.0E+00	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	NA	
N-nitrosodiphenylamine	0.0E+00	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	NA	
Pentachlorophenol	0.0E+00	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	NA	
Phenanthrene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
Pyrene	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	
PESTICIDES								
4,4'-DDE	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	
4,4'-DDT	0.0E+00	No	3.40E-01	B2	Liver	Diet/IRIS	NA	

TABLE E.1-9
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HQ CHILD MEAN	HQ ADULT MEAN	HQ CHILD MAXIMUM	HQ ADULT MAXIMUM	PATHWAY HAZARD INDEX (HI)	TOTAL EXPOSURE (HI)	
																9.5E-04	5.8E-02	CHILD MEAN
																6.7E-04	3.9E-02	ADULT MEAN
																1.4E-03	4.8E-01	CHILD MAX
																1.0E-03	3.2E-01	ADULT MAX
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																		
VOLATILES																		
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	NA	NA	NA			
1,1,1-Trichloroethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	1.9E-07	1.4E-07	3.2E-07	2.3E-07			
1,1,2-Trichloroethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	4.3E-06	3.1E-06	7.3E-06	5.1E-06			
1,1,2,2-Tetrachloroethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	NA	NA	NA			
1,2-Dichloropropane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
1,3-Dichloropropene (cis)	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	5.8E-05	4.1E-05	9.7E-05	6.8E-05			
1,3-Dichloropropene (trans)	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	5.8E-05	4.1E-05	9.7E-05	6.8E-05			
Benzene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Bromodichloromethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	8.7E-07	6.1E-07	1.5E-06	1.0E-06			
Bromoform	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	8.7E-07	6.1E-07	1.5E-06	1.0E-06			
Carbon Tetrachloride	2.1E-06	1.5E-06	2.9E-06	2.1E-06	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	3.0E-05	2.1E-05	4.2E-05	2.9E-05			
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	NA	NA	NA			
Dibromochloromethane	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	8.7E-07	6.1E-07	1.5E-06	1.0E-06			
Ethylbenzene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	1.7E-06	1.2E-06	2.9E-06	2.1E-06			
Styrene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	8.7E-06	6.1E-06	1.5E-05	1.0E-05			
Tetrachloroethene	1.9E-06	1.3E-06	2.9E-06	2.1E-06	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	1.9E-06	1.3E-06	2.9E-06	2.1E-06			
Toluene	1.6E-06	1.1E-06	2.9E-06	2.1E-06	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	7.9E-06	5.5E-06	1.5E-05	1.0E-05			
Trichloroethene	1.7E-06	1.2E-06	2.9E-06	2.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Xylene	1.6E-06	1.1E-06	2.9E-06	2.1E-06	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	7.9E-06	5.5E-06	1.5E-05	1.0E-05			
SEMIVOLATILES																		
1,4-Dichlorobenzene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
2-Methylnaphthalene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	4E-03			NA/IRIS,HEAST			3.7E-05	2.6E-05	5.0E-05	3.5E-05			
2,4-Dinitrotoluene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
2,4,6-Trichlorophenol	1.3E-07	8.9E-08	2.0E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
2,6-Dinitrotoluene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
3,3-Dichlorobenzidine	3.0E-07	2.1E-07	3.9E-07	2.8E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Anthracene	1.0E-07	7.0E-08	2.0E-07	1.4E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	3.3E-07	2.3E-07	6.7E-07	4.7E-07			
Benzoic Acid	7.6E-07	5.3E-07	1.1E-06	7.5E-07	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	1.9E-07	1.3E-07	2.7E-07	1.9E-07			
Benzo(a)anthracene	1.1E-07	7.5E-08	2.0E-07	1.4E-07	No	4E-03			NA/IRIS,HEAST			2.7E-05	1.9E-05	5.0E-05	3.5E-05			
Benzo(a)pyrene	9.6E-08	6.6E-08	2.0E-07	1.4E-07	No	4E-03			NA/IRIS,HEAST			2.4E-05	1.7E-05	5.0E-05	3.5E-05			
Benzo(b)fluoranthene	1.3E-07	9.3E-08	2.0E-07	1.4E-07	No	4E-03			NA/IRIS,HEAST			3.3E-05	2.3E-05	5.0E-05	3.5E-05			
Benzo(k)fluoranthene	1.1E-07	7.7E-08	2.0E-07	1.4E-07	No	4E-03			NA/IRIS,HEAST			2.7E-05	1.9E-05	5.0E-05	3.5E-05			
Bis(2-chloroethyl)ether	1.6E-07	1.0E-07	2.0E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Bis(2ethylhexyl)phthalate	1.0E-07	7.2E-08	2.0E-07	1.4E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	5.1E-06	3.6E-06	1.0E-05	7.0E-06			
Butylbenzylphthalate	1.6E-07	1.0E-07	2.0E-07	1.4E-07	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	7.4E-07	5.2E-07	1.0E-06	7.0E-07			
Chrysene	1.2E-07	8.1E-08	2.0E-07	1.4E-07	No	4E-03			NA/HEAST			2.9E-05	2.0E-05	5.0E-05	3.5E-05			
Dibenzo(a,h)anthracene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	4E-03			NA/IRIS,HEAST			3.7E-05	2.6E-05	5.0E-05	3.5E-05			
Di-n-butylphthalate	9.6E-08	4.6E-08	2.0E-07	1.4E-07	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	6.6E-07	4.6E-07	2.0E-06	1.4E-06			
Fluoranthene	1.6E-07	1.1E-07	2.0E-07	1.4E-07	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	4.0E-06	2.8E-06	5.0E-06	3.5E-06			
Fluorene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	3.7E-06	2.6E-06	5.0E-06	3.5E-06			
Hexachlorobenzene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	1.9E-04	1.3E-04	2.5E-04	1.8E-04			
Hexachlorobutadiene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	7.4E-05	5.2E-05	1.0E-04	7.0E-05			
Hexachloroethane	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	1.5E-04	1.0E-04	2.0E-04	1.4E-04			
Indeno(123cd)pyrene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	4E-03			NA/IRIS,HEAST			3.7E-05	2.6E-05	5.0E-05	3.5E-05			
Isophrone	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	7.4E-07	5.2E-07	1.0E-06	7.0E-07			
Naphthalene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		3.7E-05	2.6E-05	5.0E-05	3.5E-05			
N-nitroso-di-n-propylamine	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
N-nitrosodiphenylamine	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Pentachlorophenol	6.3E-07	4.4E-07	9.7E-07	6.8E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	2.1E-05	1.5E-05	3.2E-05	2.3E-05			
Phenanthrene	1.1E-07	8.0E-08	2.0E-07	1.4E-07	No	4E-03			NA/HEAST			2.6E-05	2.0E-05	5.0E-05	3.5E-05			
Pyrene	1.5E-07	1.0E-07	2.0E-07	1.4E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	5.0E-06	3.5E-06	6.7E-06	4.7E-06			
PESTICIDES																		
4,4'-DDE	6.9E-08	4.8E-08	1.6E-06	1.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
4,4'-DDT	1.2E-06	8.2E-08	3.6E-06	2.5E-06	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	2.3E-05	1.6E-05	7.2E-05	5.1E-05			

TABLE E.1-10
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HQ CHILD MEAN	HQ ADULT MEAN	HQ CHILD MAXIMUM	HQ ADULT MAXIMUM	PATHWAY HAZARD INDEX (HI)
																5.8E-02 | CHLD MEAN
																3.6E-02 | ADULT MEAN
																4.5E-01 | CHLD MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL																3.2E-01 | ADULT MAXIMUM
INORGANICS																
Aluminum	1.0E-02	7.2E-03	1.4E-02	1.3E-02	No	NA			NA/HEAST			NA	NA	NA	NA	
Antimony	8.2E-06	4.4E-06	1.1E-05	7.4E-06	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST			2E-02	1.1E-02	2.6E-02	1.6E-02	
Arsenic	4.3E-06	3.0E-06	2.0E-05	1.4E-05	No	1E-03		Keratosis and hyperpigmentation	Oral/HEAST	1000	1	4E-03	3.0E-03	2.0E-02	1.4E-02	
Barium	2.8E-06	1.8E-06	3.9E-05	2.7E-05	No	7E-02	Medium	None observed	Water/IRIS	3	1	4E-04	2.6E-04	5.5E-04	3.9E-04	
Beryllium	3.1E-07	2.2E-07	5.3E-07	3.7E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	6E-05	4.4E-05	1.1E-04	7.4E-05	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	NA	NA	NA	NA	
Calcium	1.1E-03	8.0E-04	1.7E-03	1.2E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Chromium	1.2E-05	8.2E-06	2.7E-05	1.9E-05	No	5E-03	Low	None observed	Water/IRIS,HEAST	500	1	2E-03	1.6E-03	5.5E-03	3.8E-03	
Cobalt	1.1E-05	8.0E-06	2.5E-05	2.1E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Copper	1.4E-05	9.5E-06	4.7E-05	3.3E-05	No	4E-02		Local GI irritation	HEAST			3E-04	2.4E-04	1.2E-03	8.3E-04	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss, thyroid, myelin degeneration	Diet/IRIS	100	5	NA	NA	NA	NA	
Iron	2.1E-02	1.5E-02	5.0E-02	3.5E-02	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Lead	1.8E-06	7.8E-06	0.0E+00	0.0E+00	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA	
Magnesium	2.9E-03	2.0E-03	5.8E-03	4.1E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Manganese	4.4E-04	3.1E-04	8.7E-04	6.1E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	4E-03	3.1E-03	8.7E-03	6.1E-03	
Mercury	1.5E-06	1.0E-06	1.1E-04	7.4E-05	No	3E-04		Kidney effects	Oral/HEAST	1000		5E-03	3.5E-03	3.8E-01	2.5E-01	
Nickel	1.2E-05	8.6E-06	4.1E-05	2.8E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Potassium	4.3E-04	3.0E-04	8.0E-04	3.8E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Selenium	5.7E-07	4.0E-07	7.6E-07	5.3E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	1E-04	8.0E-05	1.5E-04	1.1E-04	
Silver	8.3E-07	5.8E-07	1.4E-06	9.6E-07	No	3E-03	Medium	Argyria	Oral/IRIS,HEAST	2	1	3E-04	2.0E-04	4.6E-04	3.2E-04	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Thallium	1.1E-06	8.0E-07	1.6E-06	1.2E-06	No	7E-05		Increased SGOT and LDH levels, alopecia	Diet/HEAST	3000		2E-02	1.1E-02	2.6E-02	1.8E-02	
Vanadium	1.5E-05	1.0E-05	4.1E-05	2.9E-05	No	7E-03		None observed	Water/HEAST	100		2E-03	1.5E-03	5.8E-03	4.1E-03	
Zinc	1.3E-04	8.8E-05	1.4E-04	1.1E-04	No	2E-01		Anemia	Therap./HEAST	10		6E-04	4.4E-04	8.1E-04	5.7E-04	
VOLATILES																
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	NA	NA	NA	
1,1,1-Trichloroethane	7.0E-09	4.9E-09	1.3E-08	8.2E-09	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	8E-08	5.4E-08	1.3E-07	9.1E-08	
1,1,2-Trichloroethane	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	2E-06	1.2E-06	2.9E-06	2.1E-06	
1,1,2,2-Tetrachloroethane	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	NA	NA	NA	
1,2-Dichloropropane	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,3-Dichloropropane (cis)	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2E-05	1.6E-05	3.9E-05	2.7E-05	
1,3-Dichloropropane (trans)	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2E-05	1.6E-05	3.9E-05	2.7E-05	
Benzene	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromodichloromethane	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	3E-07	2.4E-07	5.8E-07	4.1E-07	
Bromoform	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	3E-07	2.4E-07	5.8E-07	4.1E-07	
Carbon Tetrachloride	8.3E-09	5.8E-09	1.2E-08	8.2E-09	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	1E-05	8.3E-06	1.7E-05	1.2E-05	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	NA	NA	NA	
Dibromochloromethane	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	3E-07	2.4E-07	5.8E-07	4.1E-07	
Ethylbenzene	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	7E-07	4.9E-07	1.2E-06	8.2E-07	
Styrene	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	3E-06	2.4E-06	5.8E-06	4.1E-06	
Tetrachloroethene	7.7E-09	5.4E-09	1.2E-08	8.2E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	8E-07	5.4E-07	1.2E-06	8.2E-07	
Toluene	8.3E-09	4.4E-09	1.2E-08	8.2E-09	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	3E-08	2.2E-08	5.8E-08	4.1E-08	
Trichloroethene	7.0E-09	4.9E-09	1.2E-08	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Xylene	8.3E-09	4.4E-09	1.2E-08	8.2E-09	No	2E+00	Medium	Hyperactivity, dec. body wt, inc. mortality	Gavage/IRIS	100	1	3E-09	2.2E-09	5.8E-09	4.1E-09	

TABLE E.1-10 (cont)
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HQ CHILD MEAN	HQ ADULT MEAN	HQ CHILD MAXIMUM	HQ ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL															
SEMIVOLATILES															
1,4-Dichlorobenzene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	4E-03			NA/IRIS,HEAST			1E-04	1.0E-04	2.0E-04	1.4E-04
2,4-Dinitrotoluene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,4,6-Trichlorophenol	5.1E-07	3.6E-07	6.8E-07	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	1.2E-06	8.3E-07	1.6E-06	1.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Anthracene	4.0E-07	2.8E-07	8.0E-07	5.6E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	1E-06	9.4E-07	2.7E-06	1.9E-06
Benzoic Acid	3.0E-06	2.1E-06	4.3E-06	3.0E-06	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	7E-07	5.3E-07	1.1E-06	7.5E-07
Benzo(a)anthracene	4.2E-07	3.0E-07	8.0E-07	5.6E-07	No	4E-03			NA/IRIS,HEAST			1E-04	7.5E-05	2.0E-04	1.4E-04
Benzo(a)pyrene	3.9E-07	2.7E-07	8.0E-07	5.6E-07	No	4E-03			NA/IRIS,HEAST			1E-04	6.9E-05	2.0E-04	1.4E-04
Benzo(b)fluoranthene	5.3E-07	3.7E-07	8.0E-07	5.6E-07	No	4E-03			NA/IRIS,HEAST			1E-04	9.3E-05	2.0E-04	1.4E-04
Benzo(k)fluoranthene	4.4E-07	3.1E-07	8.0E-07	5.6E-07	No	4E-03			NA/IRIS,HEAST			1E-04	7.7E-05	2.0E-04	1.4E-04
Bis(2-chloroethyl)ether	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	4.1E-07	2.9E-07	8.0E-07	5.6E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2E-05	1.4E-05	4.0E-05	2.8E-05
Butylbenzylphthalate	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	2E-01	Low	Effects on weight gain, testes, liver, kidney	Diet/IRIS,HEAST	1000	1	3E-06	2.1E-06	4.0E-06	2.8E-06
Chrysene	4.6E-07	3.3E-07	8.0E-07	5.6E-07	No	4E-03			NA/HEAST			1E-04	8.1E-05	2.0E-04	1.4E-04
Dibenzo(a,h)anthracene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	4E-03			NA/IRIS,HEAST			1E-04	1.0E-04	2.0E-04	1.4E-04
Di-n-butylphthalate	2.7E-07	1.9E-07	8.0E-07	5.6E-07	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	3E-06	1.9E-06	8.0E-06	5.6E-06
Fluoranthene	6.3E-07	4.5E-07	8.0E-07	5.6E-07	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	2E-05	1.1E-05	2.0E-05	1.4E-05
Fluorene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	1E-05	1.0E-05	2.0E-05	1.4E-05
Hexachlorobenzene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	7E-04	5.2E-04	1.0E-03	7.0E-04
Hexachlorobutadiene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	3E-04	2.1E-04	4.0E-04	2.8E-04
Hexachloroethane	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	6E-04	4.2E-04	8.0E-04	5.6E-04
Indeno(123cd)pyrene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	4E-03			NA/IRIS,HEAST			1E-04	1.0E-04	2.0E-04	1.4E-04
Isophrone	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	3E-06	2.1E-06	4.0E-06	2.8E-06
Naphthalene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		1E-04	1.0E-04	2.0E-04	1.4E-04
N-nitroso-di-n-propylamine	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Pentachlorophenol	2.6E-06	1.8E-06	3.8E-06	2.7E-06	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	8E-05	5.9E-05	1.3E-04	9.1E-05
Phenanthrene	4.8E-07	3.2E-07	8.0E-07	5.6E-07	No	4E-03			NA/HEAST			1E-04	8.0E-05	2.0E-04	1.4E-04
Pyrene	6.0E-07	4.2E-07	8.0E-07	5.6E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	2E-05	1.4E-05	2.7E-05	1.9E-05
PESTICIDES															
4,4'-DDE	8.3E-09	5.8E-09	1.8E-08	1.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	1.4E-08	9.8E-09	4.3E-08	3.0E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	3E-05	2.0E-05	8.7E-05	6.1E-05

TABLE E.1-11
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD (mg/kg/day)	CDI ADULT (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HQ CHILD MEAN	HQ ADULT MEAN	PATHWAY HAZARD INDEX (HI)	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SURFACE WATER												8.4E-06 4.8E-06	CHILD ADULT
VOLATILES													
1,1-Dichloroethane	0.0E+00	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	NA		
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
1,2-Dichloroethene	0.0E+00	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	NA		
1,2- Dichloropropane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	NA	NA		
Benzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	NA	NA		
Bromoform	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	NA	NA		
Carbon Tetrachloride	0.0E+00	0.0E+00	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	NA	NA		
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	NA	NA		
Ethylbenzene	0.0E+00	0.0E+00	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	NA	NA		
Styrene	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	NA	NA		
Tetrachloroethene	0.0E+00	0.0E+00	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	NA	NA		
Toluene	0.0E+00	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Vinyl acetate	4.5E-06	2.8E-06	No	6E-02	High	Nasal epithelial lesions	IRIS	30	1	7.8E-05	4.4E-05		
Xylene	0.0E+00	0.0E+00	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	NA	NA		
SEMIVOLATILES													
1,4-Dichlorobenzene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
2-Methylnaphthalene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
2,4-Dinitrotoluene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
2,6-Dinitrotoluene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
3,3-Dichlorobenzidine	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Anthracene	0.0E+00	0.0E+00	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	NA	NA		
Benzoic Acid	2.2E-05	1.3E-05	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	5.6E-06	3.2E-06		
Benzo(a)anthracene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Benzo(a)pyrene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Benzo(b)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Benzo(k)fluoranthene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Bis(2-chloroethyl)ether	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Bis(2ethythexyl)phthalate	0.0E+00	0.0E+00	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	NA	NA		
Butylbenzylphthalate	0.0E+00	0.0E+00	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	NA	NA		
Chrysene	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA		
Dibenzo(a,h)anthracene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Di-n-butylphthalate	0.0E+00	0.0E+00	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	NA	NA		
Fluoranthene	0.0E+00	0.0E+00	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	NA	NA		
Fluorene	0.0E+00	0.0E+00	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	NA	NA		
Hexachlorobenzene	0.0E+00	0.0E+00	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	NA	NA		
Hexachlorobutadiene	0.0E+00	0.0E+00	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	NA	NA		
Hexachloroethane	0.0E+00	0.0E+00	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	NA	NA		
Indeno(123cd)pyrene	0.0E+00	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	NA		
Isophrone	0.0E+00	0.0E+00	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	NA	NA		
Naphthalene	0.0E+00	0.0E+00	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		NA	NA		
N-nitroso-di-n-propylamine	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
N-nitrosodiphenylamine	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
Pentachlorophenol	0.0E+00	0.0E+00	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	NA	NA		
Phenanthrene	0.0E+00	0.0E+00	No	4E-03			NA/HEAST			NA	NA		
Pyrene	0.0E+00	0.0E+00	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	NA	NA		
PESTICIDES													
4,4'-DDE	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA		
4,4'-DDT	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	NA	NA		

TABLE E.1-12
SCENARIO 1
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CHRONIC DAILY INTAKE CHILD (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE BASIS	RFD UNCERTAINTY ADJUSTMENTS	MODIFYING FACTORS	HQ CHILD MEAN	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SURFACE WATER										3.1E-02
INORGANICS										
Aluminum	7.8E-05	No	NA			NA/IRIS,HEAST			NA	
Antimony	0.0E+00	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST			NA	
Arsenic	0.0E+00	No	1E-03		Keratosis and hyperpigmentation	Oral/HEAST	1000	1	NA	
Barium	1.3E-05	No	7E-02	Medium	None observed	Water/IRIS	3	1	1.9E-04	
Beryllium	0.0E+00	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	NA	
Cadmium	1.6E-06	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	1.6E-03	
Calcium	1.7E-02	No	NA			NA/IRIS,HEAST			NA	
Chromium	0.0E+00	No	5E-03	Low	None observed	Water/IRIS,HEAST	500	1	NA	
Cobalt	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
Copper	0.0E+00	No	4E-02		Local GI irritation	HEAST			NA	
Cyanide	0.0E+00	No	2E-02	Medium	Weight loss, thyroid, myelin degeneration	Diet/IRIS	100	5	NA	
Iron	9.0E-04	No	NA			NA/IRIS,HEAST			NA	
Lead	0.0E+00	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	
Magnesium	3.9E-03	No	NA			NA/IRIS,HEAST			NA	
Manganese	1.4E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	1.4E-03	
Mercury	0.0E+00	No	3E-04		Kidney effects	Oral/HEAST	1000		NA	
Nickel	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
Potassium	4.5E-03	No	NA			NA/IRIS,HEAST			NA	
Selenium	9.5E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	1.9E-04	
Silver	0.0E+00	No	3E-03	Medium	Argyria	Oral/IRIS,HEAST	2	1	NA	
Sodium	5.1E-03	No	NA			NA/IRIS,HEAST			NA	
Thallium	1.9E-06	No	7E-05		Increased SGOT and LDH levels, alopecia	Diet/HEAST	3000		2.7E-02	
Vanadium	0.0E+00	No	7E-03		None observed	Water/HEAST	100		NA	
Zinc	3.1E-05	No	2E-01		Anemia	Therap./HEAST	10		1.5E-04	
VOLATILES										
1,1-Dichloroethane	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	
1,1,1-Trichloroethane	0.0E+00	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	NA	
1,1,2-Trichloroethane	0.0E+00	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
1,2-Dichloroethene	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	
1,2-Dichloropropane	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
1,3-Dichloropropane (cis)	0.0E+00	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	NA	
1,3-Dichloropropane (trans)	0.0E+00	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	NA	
Benzene	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
Bromodichloromethane	0.0E+00	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	NA	
Bromoform	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	NA	
Carbon Tetrachloride	0.0E+00	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	NA	
Chloroform	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	
Dibromochloromethane	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	NA	
Ethylbenzene	0.0E+00	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	NA	
Styrene	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	NA	
Tetrachloroethene	0.0E+00	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	NA	
Toluene	0.0E+00	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	NA	
Trichloroethene	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
Vinyl acetate	4.8E-06	No	6E-02	High	Nasal epithelial lesions	IRIS	30	1	8.3E-05	
Xylene	0.0E+00	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	NA	
SEMIVOLATILES										
1,4-Dichlorobenzene	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
2-Methylnaphthalene	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	
2,4-Dinitrotoluene	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
2,4,6-Trichlorophenol	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
2,6-Dinitrotoluene	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
3,3-Dichlorobenzidine	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
Anthracene	0.0E+00	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	NA	
Benzoic Acid	2.4E-05	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	NA	
Benzo(a)anthracene	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	
Benzo(a)pyrene	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	
Benzo(b)fluoranthene	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	
Benzo(k)fluoranthene	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	
Bis(2-chloroethyl)ether	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
Bis(2ethylhexyl)phthalate	0.0E+00	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	NA	
Butylbenzylphthalate	0.0E+00	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	NA	
Chrysene	0.0E+00	No	4E-03			NA/HEAST			NA	
Dibenzo(a,h)anthracene	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	
Di-n-butylphthalate	0.0E+00	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	NA	
Fluoranthene	0.0E+00	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	NA	
Fluorene	0.0E+00	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	NA	
Hexachlorobenzene	0.0E+00	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	NA	
Hexachlorobutadiene	0.0E+00	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	NA	
Hexachloroethane	0.0E+00	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	NA	
Indeno(123cd)pyrene	0.0E+00	No	4E-03			NA/IRIS,HEAST			NA	
Isophrone	0.0E+00	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	NA	
Naphthalene	0.0E+00	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		NA	
N-nitroso-di-n-propylamine	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
N-nitrosodiphenylamine	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
Pentachlorophenol	0.0E+00	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	NA	
Phenanthrene	0.0E+00	No	4E-03			NA/HEAST			NA	
Pyrene	0.0E+00	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	NA	
PESTICIDES										
4,4'-DDE	0.0E+00	No	NA			NA/IRIS,HEAST			NA	
4,4'-DDT	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	NA	

TABLE E.2-1
SCENARIO 2
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	ABS. DOSE NONCANCER MEAN (mg/kg/day)	ABS. DOSE NONCANCER MAX (mg/kg/day)	ABS. DOSE CANCER MEAN (mg/kg/day)	ABS. DOSE CANCER MAX (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVERSION FACTOR (10E-6 kg/mg)	SCR (mg/day)	AF (unitless)	EXPS. FREQ. (days/year)	EXPOSURE DURATION (year)	BODY WEIGHT (kg)	AVG.TIME NONCANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5263.74	9660.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.18	5.40	1.0E-06	500	0.00	250	25	70.0	9125	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.19	10.10	1.0E-06	500	0.00	250	25	70.0	9125	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.19	19.90	1.0E-06	500	0.00	250	25	70.0	9125	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.16	0.27	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	583.28	864.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.96	14.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.84	15.10	1.0E-06	500	0.00	250	25	70.0	9125	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.97	24.30	1.0E-06	500	0.00	250	25	70.0	9125	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10609.01	25500.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.34	56.80	1.0E-06	500	0.00	250	25	70.0	9125	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1469.77	2960.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	226.97	445.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.76	54.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.30	21.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	221.11	255.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.29	0.39	1.0E-06	500	0.00	250	25	70.0	9125	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.43	0.70	1.0E-06	500	0.00	250	25	70.0	9125	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	250	25	70.0	9125	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.58	0.90	1.0E-06	500	0.00	250	25	70.0	9125	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.53	21.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	64.44	83.00	1.0E-06	500	0.00	250	25	70.0	9125	25550
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,1-Trichloroethane	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,2-Trichloroethane	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,1,2,2-Tetrachloroethane	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,2-Dichloropropane	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,3-Dichloropropane (cis)	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
1,3-Dichloropropane (trans)	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Benzene	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Bromodichloromethane	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Bromoform	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Carbon Tetrachloride	1.0E-08	1.5E-08	3.7E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	25	70.0	9125	25550
Dibromochloromethane	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Ethylbenzene	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Styrene	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Tetrachloroethene	9.6E-09	1.5E-08	3.4E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Toluene	7.9E-09	1.5E-08	2.8E-09	5.2E-09	0.003	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Trichloroethene	8.7E-09	1.5E-08	3.1E-09	5.2E-09	0.004	0.006	1.0E-06	500	0.50	250	25	70.0	9125	25550
Xylene	7.9E-09	1.5E-08	2.8E-09	5.2E-09	0.00	0.01	1.0E-06	500	0.50	250	25	70.0	9125	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
2-Methylnaphthalene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,4-Dinitrotoluene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,4,6-Trichlorophenol	6.4E-08	1.0E-07	2.3E-08	3.6E-08	0.26	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
2,6-Dinitrotoluene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
3,3-Dichlorobenzidine	1.5E-07	2.0E-07	5.3E-08	7.1E-08	0.61	0.81	1.0E-06	500	0.05	250	25	70.0	9125	25550
Anthracene	5.0E-08	1.0E-07	1.8E-08	3.6E-08	0.21	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzoic Acid	3.8E-07	5.4E-07	1.3E-07	1.9E-07	1.54	2.20	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)anthracene	5.3E-08	1.0E-07	1.9E-08	3.6E-08	0.22	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(a)pyrene	4.9E-08	1.0E-07	1.8E-08	3.6E-08	0.20	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(b)fluoranthene	6.7E-08	1.0E-07	2.4E-08	3.6E-08	0.27	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Benzo(k)fluoranthene	5.5E-08	1.0E-07	2.0E-08	3.6E-08	0.23	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Bis(2-chloroethyl)ether	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Bis(2ethylhexyl)phthalate	5.1E-08	1.0E-07	1.8E-08	3.6E-08	0.21	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Butylbenzylphthalate	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Chrysene	6.8E-08	1.0E-07	2.1E-08	3.6E-08	0.24	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Dibenzo(a,h)anthracene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Di-n-butylphthalate	3.4E-08	1.0E-07	1.2E-08	3.6E-08	0.14	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluoranthene	8.0E-08	1.0E-07	2.8E-08	3.6E-08	0.33	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Fluorene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Hexachlorobenzene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Hexachlorobutadiene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Hexachloroethane	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Indeno(123cd)pyrene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Isophrone	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Naphthalene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
N-nitroso-di-n-propylamine	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
N-nitrosodiphenylamine	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Pentachlorophenol	3.2E-07	4.9E-07	1.1E-07	1.7E-07	1.29	2.00	1.0E-06	500	0.05	250	25	70.0	9125	25550
Phenanthrene	5.7E-08	1.0E-07	2.0E-08	3.6E-08	0.23	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
Pyrene	7.5E-08	1.0E-07	2.7E-08	3.6E-08	0.31	0.41	1.0E-06	500	0.05	250	25	70.0	9125	25550
PESTICIDES														
4,4'-DDE	3.5E-09	7.8E-09	1.2E-09	2.8E-09	0.0141	0.0320	1.0E-06	500	0.05	250	25	70.0	9125	25550
4,4'-DDT	6.9E-09	1.8E-08	2.1E-09	6.5E-09	0.0239	0.0740	1.0E-06	500	0.05	250	25	70.0	9125	25550

TABLE E.2-2
SCENARIO 2
INGESTION OF CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	INGES. RATE (mg/day)	CF (kg/mg)	EF (days/yr)	ED (years)	RAF (unitless)	BODY WEIGHT (kg)	AVG.TIME NONCANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Aluminum	2.6E-03	4.7E-03	9.2E-04	1.7E-03	5263.74	9550.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Antimony	1.6E-06	2.6E-06	5.6E-07	9.4E-07	3.18	5.40	50	1.0E-06	250	25	1.00	70.0	9125	25550
Arsenic	1.1E-06	4.9E-06	3.8E-07	1.8E-06	2.19	10.10	50	1.0E-06	250	25	1.00	70.0	9125	25550
Barium	6.5E-06	9.7E-06	2.3E-06	3.5E-06	13.19	19.90	50	1.0E-06	250	25	1.00	70.0	9125	25550
Beryllium	7.8E-08	1.3E-07	2.8E-08	4.7E-08	0.16	0.27	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Calcium	2.9E-04	4.2E-04	1.0E-04	1.5E-04	583.28	854.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chromium	2.9E-06	6.8E-06	1.0E-06	2.4E-06	5.96	14.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cobalt	2.9E-06	7.4E-06	1.0E-06	2.6E-06	5.84	15.10	50	1.0E-06	250	25	1.00	70.0	9125	25550
Copper	3.4E-06	1.2E-05	1.2E-06	4.2E-06	6.97	24.30	50	1.0E-06	250	25	1.00	70.0	9125	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Iron	5.2E-03	1.2E-02	1.9E-03	4.5E-03	10609.01	25500.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Lead	2.8E-06	6.3E-06	1.0E-06	3.0E-06	19.34	58.60	50	1.0E-06	250	25	0.30	70.0	9125	25550
Magnesium	7.2E-04	1.4E-03	2.6E-04	5.2E-04	1469.77	2960.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Manganese	1.1E-04	2.2E-04	4.0E-05	7.8E-05	226.97	445.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Mercury	3.7E-07	2.6E-06	1.3E-07	9.4E-06	0.76	54.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Nickel	3.1E-06	1.0E-05	1.1E-06	3.7E-06	6.30	21.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Potassium	1.1E-04	1.2E-04	3.9E-05	4.5E-05	221.11	256.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Selenium	1.4E-07	1.9E-07	5.1E-08	6.8E-08	0.29	0.39	50	1.0E-06	250	25	1.00	70.0	9125	25550
Silver	2.1E-07	3.4E-07	7.5E-08	1.2E-07	0.43	0.70	50	1.0E-06	250	25	1.00	70.0	9125	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Thallium	2.9E-07	4.4E-07	1.0E-07	1.6E-07	0.58	0.90	50	1.0E-06	250	25	1.00	70.0	9125	25550
Vanadium	3.7E-06	1.0E-05	1.3E-06	3.7E-06	7.53	21.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Zinc	3.2E-05	4.1E-05	1.1E-05	1.5E-05	64.44	83.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,1-Trichloroethane	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2-Trichloroethane	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,1,2,2-Tetrachloroethane	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,2-Dichloropropane	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,3-Dichloropropane (cis)	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
1,3-Dichloropropane (trans)	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzene	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromodichloromethane	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bromoform	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Carbon Tetrachloride	2.1E-09	2.9E-09	7.4E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibromochloromethane	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Ethylbenzene	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Styrene	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Tetrachloroethene	1.9E-09	2.9E-09	6.9E-10	1.0E-09	0.004	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Toluene	1.6E-09	2.9E-09	5.8E-10	1.0E-09	0.003	0.006	50	1.0E-06	250	25	1.00	70.0	9125	25550
Trichloroethene	1.7E-09	2.9E-09	6.2E-10	1.0E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
Xylene	1.6E-09	2.9E-09	5.8E-10	1.0E-09	0.00	0.01	50	1.0E-06	250	25	1.00	70.0	9125	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
2-Methylnaphthalene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4-Dinitrotoluene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,4,6-Trichlorophenol	1.3E-07	2.0E-07	4.6E-08	7.2E-08	0.26	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
2,6-Dinitrotoluene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
3,3-Dichlorobenzidine	3.0E-07	4.0E-07	1.1E-07	1.4E-07	0.61	0.81	50	1.0E-06	250	25	1.00	70.0	9125	25550
Anthracene	1.0E-07	2.0E-07	3.6E-08	7.2E-08	0.21	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzoic Acid	7.5E-07	1.1E-06	2.7E-07	3.8E-07	1.54	2.20	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)anthracene	1.1E-07	2.0E-07	3.8E-08	7.2E-08	0.22	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(a)pyrene	9.8E-08	2.0E-07	3.5E-08	7.2E-08	0.20	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(b)fluoranthene	1.3E-07	2.0E-07	4.6E-08	7.2E-08	0.27	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Benzo(k)fluoranthene	1.1E-07	2.0E-07	3.9E-08	7.2E-08	0.23	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bis(2-chloroethyl)ether	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Bis(2ethylhexyl)phthalate	1.0E-07	2.0E-07	3.7E-08	7.2E-08	0.21	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Butylbenzylphthalate	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Chrysene	1.2E-07	2.0E-07	4.2E-08	7.2E-08	0.24	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Dibenzo(a,h)anthracene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Di-n-butylphthalate	6.9E-08	2.0E-07	2.5E-08	7.2E-08	0.14	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluoranthene	1.6E-07	2.0E-07	5.7E-08	7.2E-08	0.33	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Fluorene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Hexachlorobenzene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Hexachlorobutadiene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Hexachloroethane	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Indeno(123cd)pyrene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Isophrone	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Naphthalene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
N-nitroso-di-n-propylamine	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
N-nitrosodiphenylamine	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Pentachlorophenol	6.3E-07	9.8E-07	2.3E-07	3.5E-07	1.29	2.00	50	1.0E-06	250	25	1.00	70.0	9125	25550
Phenanthrene	1.1E-07	2.0E-07	4.1E-08	7.2E-08	0.23	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
Pyrene	1.5E-07	2.0E-07	5.3E-08	7.2E-08	0.31	0.41	50	1.0E-06	250	25	1.00	70.0	9125	25550
PESTICIDES														
4,4'-DDE	2.1E-09	4.7E-09	7.4E-10	1.7E-09	0.0141	0.0320	50	1.0E-06	250	25	0.30	70.0	9125	25550
4,4'-DDT	3.5E-09	1.1E-08	1.3E-09	3.9E-09	0.0239	0.0740	50	1.0E-06	250	25	0.30	70.0	9125	25550

TABLE E.2-3
SCENARIO 2
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK	TOTAL EXPOSURE RISK	
										3.4E-07	5.4E-06	MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										4.6E-07	1.0E-05	MAX
VOLATILES												
1,1-Dichloroethane	0.0E+00	0.0E+00	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	NA			
1,1,1-Trichloroethane	3.1E-09	5.2E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
1,1,2-Trichloroethane	3.1E-09	5.2E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	1.8E-10	3.0E-10			
1,1,2,2-Tetrachloroethane	3.1E-09	5.2E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	6.2E-10	1.0E-09			
1,2-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA			
1,2-Dichloropropane	3.1E-09	5.2E-09	No	6.80E-02	B2	Liver	Gavage/IRIS	2.1E-10	3.6E-10			
1,3-Dichloropropane (cis)	3.1E-09	5.2E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	5.6E-10	9.4E-10			
1,3-Dichloropropane (trans)	3.1E-09	5.2E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	5.6E-10	9.4E-10			
Benzene	3.1E-09	5.2E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	9.0E-11	1.5E-10			
Bromodichloromethane	3.1E-09	5.2E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	4.1E-10	6.8E-10			
Bromoform	3.1E-09	5.2E-09	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	2.5E-11	4.1E-11			
Carbon Tetrachloride	3.7E-09	5.2E-09	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	4.8E-10	6.8E-10			
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	NA	NA			
Dibromochloromethane	3.1E-09	5.2E-09	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	2.6E-10	4.4E-10			
Ethylbenzene	3.1E-09	5.2E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Styrene	3.1E-09	5.2E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	9.4E-11	1.6E-10			
Tetrachloroethene	3.4E-09	5.2E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	1.8E-10	2.7E-10			
Toluene	2.8E-09	5.2E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Trichloroethene	3.1E-09	5.2E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	3.4E-11	5.8E-11			
Xylene	2.8E-09	5.2E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
SEMIVOLATILES												
1,4-Dichlorobenzene	2.7E-08	3.6E-08	No	2.40E-02	C	Liver	Gavage/IRIS	6.4E-10	8.6E-10			
2-Methylnaphthalene	2.7E-08	3.6E-08	No	NA			NA/IRIS,HEAST	NA	NA			
2,4-Dinitrotoluene	2.7E-08	3.6E-08	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	1.8E-08	2.4E-08			
2,4,6-Trichlorophenol	2.3E-08	3.6E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	2.5E-10	3.9E-10			
2,6-Dinitrotoluene	2.7E-08	3.6E-08	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	1.8E-08	2.4E-08			
3,3-Dichlorobenzidine	5.3E-08	7.1E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	2.4E-08	3.2E-08			
Anthracene	1.8E-08	3.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Benzoic Acid	1.3E-07	1.9E-07	No	NA			NA/IRIS,HEAST	NA	NA			
Benzo(a)anthracene	1.9E-08	3.6E-08	No	NA	B2	Liver,lung,skin	IRIS	NA	NA			
Benzo(a)pyrene	1.8E-08	3.6E-08	No	NA	B2	Stomach, lung	IRIS	NA	NA			
Benzo(b)fluoranthene	2.4E-08	3.6E-08	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA			
Benzo(k)fluoranthene	2.0E-08	3.6E-08	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA			
Bis(2-chloroethyl)ether	2.7E-08	3.6E-08	No	1.10E+00	B2	Liver	IRIS	2.9E-08	3.9E-08			
Bis(2ethylhexyl)phthalate	1.8E-08	3.6E-08	No	1.40E-02	B2	Liver	IRIS	2.6E-10	5.0E-10			
Butylbenzylphthalate	2.7E-08	3.6E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA			
Chrysene	2.1E-08	3.6E-08	No	NA	B2	Malignant lymphoma	IRIS	NA	NA			
Dibenzo(a,h)anthracene	2.7E-08	3.6E-08	No	NA	B2	Lung, mammary	IRIS	NA	NA			
Di-n-butylphthalate	1.2E-08	3.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluoranthene	2.8E-08	3.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluorene	2.7E-08	3.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Hexachlorobenzene	2.7E-08	3.6E-08	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	4.3E-08	5.7E-08			
Hexachlorobutadiene	2.7E-08	3.6E-08	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	2.1E-09	2.8E-09			
Hexachloroethane	2.7E-08	3.6E-08	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	3.7E-10	5.0E-10			
Indeno(123cd)pyrene	2.7E-08	3.6E-08	No	NA	B2	Lung, skin	IRIS	NA	NA			
Isophrone	2.7E-08	3.6E-08	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	1.1E-10	1.5E-10			
Naphthalene	2.7E-08	3.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
N-nitroso-di-n-propylamine	2.7E-08	3.6E-08	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	1.9E-07	2.5E-07			
N-nitrosodiphenylamine	2.7E-08	3.6E-08	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	1.3E-10	1.8E-10			
Pentachlorophenol	1.1E-07	1.7E-07	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	1.4E-08	2.1E-08			
Phenanthrene	2.0E-08	3.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
Pyrene	2.7E-08	3.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA			
PESTICIDES												
4,4'-DDE	1.2E-09	2.6E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	4.2E-10	9.5E-10			
4,4'-DDT	2.1E-09	6.5E-09	No	3.40E-01	B2	Liver	Diet/IRIS	7.1E-10	2.2E-09			

TABLE E.2-4
SCENARIO 2
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										5E-06 MEAN 1E-05 MAXIMUM
INORGANICS										
Aluminum	9.2E-04	1.7E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	
Antimony	5.6E-07	9.4E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Arsenic	3.8E-07	1.8E-06	No	1.75E+00	A	Skin	Water/IRIS	6.7E-07	3.1E-06	
Barium	2.3E-06	3.5E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Beryllium	2.8E-08	4.7E-08	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	1.2E-07	2.0E-07	
Cadmium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Calcium	1.0E-04	1.5E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Chromium	1.0E-06	2.4E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Cobalt	1.0E-06	2.6E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Copper	1.2E-06	4.2E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Cyanide	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Iron	1.9E-03	4.5E-03	No	NA			NA/IRIS,HEAST	NA	NA	
Lead	1.0E-06	3.0E-06	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	
Magnesium	2.8E-04	5.2E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Manganese	4.0E-05	7.8E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	
Mercury	1.3E-07	9.4E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nickel	1.1E-06	3.7E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Potassium	3.9E-05	4.5E-05	No	NA			NA/IRIS,HEAST	NA	NA	
Selenium	5.1E-08	6.8E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Silver	7.5E-08	1.2E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	
Sodium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Thallium	1.0E-07	1.6E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Vanadium	1.3E-06	3.7E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Zinc	1.1E-05	1.5E-05	No	NA			NA/IRIS,HEAST	NA	NA	
VOLATILES										
1,1-Dichloroethane	0.0E+00	0.0E+00	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	NA	
1,1,1-Trichloroethane	6.2E-10	1.0E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	
1,1,2-Trichloroethane	6.2E-10	1.0E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	3.6E-11	6.0E-11	
1,1,2,2-Tetrachloroethane	6.2E-10	1.0E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	1.2E-10	2.1E-10	
1,2-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
1,2-Dichloropropane	6.2E-10	1.0E-09	No	6.80E-02	B2	Liver	Gavage/IRIS	4.2E-11	7.1E-11	
1,3-Dichloropropane (cis)	6.2E-10	1.0E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	1.1E-10	1.9E-10	
1,3-Dichloropropane (trans)	6.2E-10	1.0E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	1.1E-10	1.9E-10	
Benzene	6.2E-10	1.0E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.8E-11	3.0E-11	
Bromodichloromethane	6.2E-10	1.0E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	8.1E-11	1.4E-10	
Bromoform	6.2E-10	1.0E-09	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	4.9E-12	8.3E-12	
Carbon Tetrachloride	7.4E-10	1.0E-09	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	9.6E-11	1.4E-10	
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	NA	NA	
Dibromochloromethane	6.2E-10	1.0E-09	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	5.2E-11	8.8E-11	
Ethylbenzene	6.2E-10	1.0E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	
Styrene	6.2E-10	1.0E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.9E-11	3.1E-11	
Tetrachloroethene	6.9E-10	1.0E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	3.5E-11	5.3E-11	
Toluene	5.6E-10	1.0E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	
Trichloroethene	6.2E-10	1.0E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	6.9E-12	1.2E-11	
Xylene	5.6E-10	1.0E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	
SEMIVOLATILES										
1,4-Dichlorobenzene	5.3E-08	7.2E-08	No	2.40E-02	C	Liver	Gavage/IRIS	1.3E-09	1.7E-09	
2-Methylnaphthalene	5.3E-08	7.2E-08	No	NA			NA/IRIS,HEAST	NA	NA	
2,4-Dinitrotoluene	5.3E-08	7.2E-08	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	3.6E-08	4.9E-08	
2,4,6-Trichlorophenol	4.6E-08	7.2E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	5.0E-10	7.9E-10	
2,6-Dinitrotoluene	5.3E-08	7.2E-08	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	3.6E-08	4.9E-08	
3,3-Dichlorobenzidine	1.1E-07	1.4E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	4.8E-08	6.4E-08	
Anthracene	3.8E-08	7.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzoic Acid	2.7E-07	3.8E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Benzo(a)anthracene	3.8E-08	7.2E-08	No	1.15E+01	B2	Liver,lung,skin	IRIS	4.4E-07	8.2E-07	
Benzo(a)pyrene	3.5E-08	7.2E-08	No	1.15E+01	B2	Stomach, lung	IRIS	4.0E-07	8.2E-07	
Benzo(b)fluoranthene	4.8E-08	7.2E-08	No	1.15E+01	B2	Lung,thorax,skin	IRIS	5.5E-07	8.2E-07	
Benzo(k)fluoranthene	3.9E-08	7.2E-08	No	1.15E+01	B2	Lung,thorax,skin	IRIS	4.5E-07	8.2E-07	
Bis(2-chloroethyl)ether	5.3E-08	7.2E-08	No	1.10E+00	B2	Liver	IRIS	5.9E-08	7.9E-08	
Bis(2ethylhexyl)phthalate	3.7E-08	7.2E-08	No	1.40E-02	B2	Liver	IRIS	5.1E-10	1.0E-09	
Butylbenzylphthalate	5.3E-08	7.2E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA	
Chrysene	4.2E-08	7.2E-08	No	1.15E+01	B2	Malignant lymphoma	IRIS	4.8E-07	8.2E-07	
Dibenzo(a,h)anthracene	5.3E-08	7.2E-08	No	1.15E+01	B2	Lung, mammary	IRIS	6.1E-07	8.2E-07	
Di-n-butylphthalate	2.5E-08	7.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluoranthene	5.7E-08	7.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluorene	5.3E-08	7.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Hexachlorobenzene	5.3E-08	7.2E-08	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	8.5E-08	1.1E-07	
Hexachlorobutadiene	5.3E-08	7.2E-08	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	4.2E-09	5.6E-09	
Hexachloroethane	5.3E-08	7.2E-08	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	7.5E-10	1.0E-09	
Indeno(123cd)pyrene	5.3E-08	7.2E-08	No	1.15E+01	B2	Lung, skin	IRIS	6.1E-07	8.2E-07	
Isophrone	5.3E-08	7.2E-08	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	2.2E-10	2.9E-10	
Naphthalene	5.3E-08	7.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
N-nitroso-di-n-propylamine	5.3E-08	7.2E-08	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	3.7E-07	5.0E-07	
N-nitrosodiphenylamine	5.3E-08	7.2E-08	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	2.6E-10	3.5E-10	
Pentachlorophenol	2.3E-07	3.8E-07	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	2.7E-08	4.2E-08	
Phenanthrene	4.1E-08	7.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Pyrene	5.3E-08	7.2E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
PESTICIDES										
4,4'-DDE	7.4E-10	1.7E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	2.5E-10	5.7E-10	
4,4'-DDT	1.3E-09	3.9E-09	No	3.40E-01	B2	Liver	Diet/IRIS	4.3E-10	1.3E-09	

TABLE E.2-5
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABSORP.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MOD. FACT.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)	TOTAL EXPOSURE (HI)	
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												4.8E-04	1.4E-02	MEAN
												7.2E-04	1.1E-01	MAXIMUM
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	NA			
1,1,1-Trichloroethane	8.7E-09	1.5E-08	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	9.7E-08	1.6E-07			
1,1,2-Trichloroethane	8.7E-09	1.5E-08	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	2.2E-06	3.7E-06			
1,1,2,2-Tetrachloroethane	8.7E-09	1.5E-08	No	NA			NA/IRIS,HEAST			NA	NA			
1,2-Dichloroethene	0.0E+00	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	NA			
1,2-Dichloropropane	8.7E-09	1.5E-08	No	NA			NA/IRIS,HEAST			NA	NA			
1,3-Dichloropropane (cis)	8.7E-09	1.5E-08	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2.9E-05	4.9E-05			
1,3-Dichloropropane (trans)	8.7E-09	1.5E-08	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2.9E-05	4.9E-05			
Benzene	8.7E-09	1.5E-08	No	NA			NA/IRIS,HEAST			NA	NA			
Bromodichloromethane	8.7E-09	1.5E-08	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	4.4E-07	7.3E-07			
Bromoform	8.7E-09	1.5E-08	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	4.4E-07	7.3E-07			
Carbon Tetrachloride	1.0E-08	1.5E-08	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	1.5E-05	2.1E-05			
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	NA			
Dibromochloromethane	8.7E-09	1.5E-08	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	4.4E-07	7.3E-07			
Ethylbenzene	8.7E-09	1.5E-08	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	8.7E-07	1.5E-06			
Styrene	8.7E-09	1.5E-08	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	4.4E-06	7.3E-06			
Tetrachloroethene	9.6E-09	1.5E-08	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	9.6E-07	1.5E-06			
Toluene	7.9E-09	1.5E-08	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	3.9E-06	7.3E-06			
Trichloroethene	8.7E-09	1.5E-08	No	NA			NA/IRIS,HEAST			NA	NA			
Xylene	7.9E-09	1.5E-08	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	3.9E-09	7.3E-09			
SEMIVOLATILES														
1,4-Dichlorobenzene	7.6E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
2-Methylnaphthalene	7.6E-08	1.0E-07	No	4E-03			HEAST			1.9E-05	2.5E-05			
2,4-Dinitrotoluene	7.6E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
2,4,6-Trichlorophenol	6.4E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
2,6-Dinitrotoluene	7.6E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
3,3-Dichlorobenzidine	1.5E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
Anthracene	6.0E-08	1.0E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	1.7E-07	3.3E-07			
Benzoic Acid	3.8E-07	5.4E-07	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	9.4E-08	1.3E-07			
Benzo(a)anthracene	5.3E-08	1.0E-07	No	4E-03			HEAST			1.3E-05	2.5E-05			
Benzo(a)pyrene	4.9E-08	1.0E-07	No	4E-03			HEAST			1.2E-05	2.5E-05			
Benzo(b)fluoranthene	6.7E-08	1.0E-07	No	4E-03			HEAST			1.7E-05	2.5E-05			
Benzo(k)fluoranthene	5.6E-08	1.0E-07	No	4E-03			HEAST			1.4E-05	2.5E-05			
Bis(2-chloroethyl)ether	7.6E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
Bis(2ethylhexyl)phthalate	5.1E-08	1.0E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	2.6E-06	5.0E-06			
Butylbenzylphthalate	7.6E-08	1.0E-07	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	3.7E-07	5.0E-07			
Chrysene	5.6E-08	1.0E-07	No	4E-03			HEAST			1.5E-05	2.6E-05			
Dibenzo(a,h)anthracene	7.5E-08	1.0E-07	No	4E-03			HEAST			1.9E-05	2.5E-05			
Di-n-butylphthalate	3.4E-08	1.0E-07	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	3.4E-07	1.0E-06			
Fluoranthene	8.0E-08	1.0E-07	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	2.0E-06	2.5E-06			
Fluorene	7.5E-08	1.0E-07	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	1.9E-06	2.5E-06			
Hexachlorobenzene	7.5E-08	1.0E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	9.3E-05	1.3E-04			
Hexachlorobutadiene	7.5E-08	1.0E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	3.7E-05	5.0E-05			
Hexachloroethane	7.5E-08	1.0E-07	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	7.5E-06	1.0E-04			
Indeno(123cd)pyrene	7.5E-08	1.0E-07	No	4E-03			HEAST			1.9E-05	2.5E-05			
Isophrone	7.5E-08	1.0E-07	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	3.7E-07	5.0E-07			
Naphthalene	7.5E-08	1.0E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		1.9E-06	2.5E-06			
N-nitroso-di-n-propylamine	7.5E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
N-nitrosodiphenylamine	7.6E-08	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA			
Pentachlorophenol	3.2E-07	4.9E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	1.1E-05	1.6E-05			
Phenanthrene	5.7E-08	1.0E-07	No	4E-03			HEAST			1.4E-05	2.5E-05			
Pyrene	7.5E-08	1.0E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	2.5E-06	3.3E-06			
PESTICIDES														
4,4'-DDE	3.5E-09	7.6E-09	No	NA			NA/IRIS,HEAST			NA	NA			
4,4'-DDT	5.9E-09	1.8E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.2E-05	3.6E-05			

TABLE E.2-6
SCENARIO 2
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABSORP.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MOD. FACT.	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												1.4E-02 MEAN 1.1E-01 MAXIMU
INORGANICS												
Aluminum	2.6E-03	4.7E-03	No	NA			NA/HEAST			NA	NA	
Antimony	1.6E-06	2.6E-06	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST			4E-03	6.6E-03	
Arsenic	1.1E-06	4.9E-06	No	1E-03		Keratosis and hyperpigmentation	Oral/HEAST	1000	1	1E-03	4.9E-03	
Barium	6.5E-06	9.7E-06	No	7E-02	Medium	None observed	Water/IRIS	3	1	9E-05	1.4E-04	
Beryllium	7.8E-08	1.3E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	2E-05	2.6E-05	
Cadmium	0.0E+00	0.0E+00	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	NA	NA	
Calcium	2.9E-04	4.2E-04	No	NA			NA/IRIS,HEAST			NA	NA	
Chromium	2.9E-06	6.8E-06	No	5E-03	Low	None observed	Water/IRIS,HEAST	500	1	6E-04	1.4E-03	
Cobalt	2.9E-06	7.4E-06	No	NA			NA/IRIS,HEAST			NA	NA	
Copper	3.4E-06	1.2E-05	No	4E-02		Local GI irritation	HEAST			9E-05	3.0E-04	
Cyanide	0.0E+00	0.0E+00	No	2E-02	Medium	Weight lose, thyroid, myelin degeneration	Diet/IRIS	100	5	NA	NA	
Iron	5.2E-03	1.2E-02	No	NA			NA/HEAST			NA	NA	
Lead	2.8E-06	8.3E-06	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	
Magnesium	7.2E-04	1.4E-03	No	NA			NA/IRIS,HEAST			NA	NA	
Manganese	1.1E-04	2.2E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	1E-03	2.2E-03	
Mercury	3.7E-07	2.6E-06	No	3E-04		Kidney effects	Oral/HEAST	1000		1E-03	8.8E-02	
Nickel	3.1E-06	1.0E-05	No	NA			NA/IRIS,HEAST			NA	NA	
Potassium	1.1E-04	1.2E-04	No	NA			NA/IRIS,HEAST			NA	NA	
Selenium	1.4E-07	1.9E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	3E-05	3.8E-05	
Silver	2.1E-07	3.4E-07	No	3E-03	Medium	Argyria	Oral/IRIS,HEAST	2	1	7E-05	1.1E-04	
Sodium	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	
Thallium	2.9E-07	4.4E-07	No	7E-05		Increased SGOT and LDH levels, alopecia	Diet/HEAST	3000		4E-03	6.3E-03	
Vanadium	3.7E-06	1.0E-05	No	7E-03		None observed	Water/HEAST	100		5E-04	1.5E-03	
Zinc	3.2E-05	4.1E-05	No	2E-01		Anemia	Therap./HEAST	10		2E-04	2.0E-04	
VOLATILES												
1,1-Dichloroethane	0.0E+00	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	NA	
1,1,1-Trichloroethane	1.7E-09	2.9E-09	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	2E-08	3.3E-08	
1,1,2-Trichloroethane	1.7E-09	2.9E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	4E-07	7.3E-07	
1,1,2,2-Tetrachloroethane	1.7E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	
1,2-Dichloroethene	0.0E+00	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	NA	
1,2-Dichloropropane	1.7E-09	2.9E-09	No	NA			NA/HEAST			NA	NA	
1,3-Dichloropropane (cis)	1.7E-09	2.9E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	6E-06	9.8E-06	
1,3-Dichloropropane (trans)	1.7E-09	2.9E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	6E-06	9.8E-06	
Benzene	1.7E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Bromodichloromethane	1.7E-09	2.9E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	9E-08	1.5E-07	
Bromoform	1.7E-09	2.9E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	9E-08	1.5E-07	
Carbon Tetrachloride	2.1E-09	2.9E-09	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	3E-06	4.2E-06	
Chloroform	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	NA	
Dibromochloromethane	1.7E-09	2.9E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	9E-08	1.5E-07	
Ethylbenzene	1.7E-09	2.9E-09	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	2E-07	2.9E-07	
Styrene	1.7E-09	2.9E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	9E-09	1.5E-08	
Tetrachloroethene	1.9E-09	2.9E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	2E-07	2.9E-07	
Toluene	1.6E-09	2.9E-09	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	8E-09	1.5E-08	
Trichloroethene	1.7E-09	2.9E-09	No	NA			NA/IRIS,HEAST			NA	NA	
Xylene	1.6E-09	2.9E-09	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	8E-10	1.5E-09	
SEMIVOLATILES												
1,4-Dichlorobenzene	1.5E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
2-Methylnaphthalene	1.5E-07	2.0E-07	No	4E-03			HEAST			4E-05	5.0E-05	
2,4-Dinitrotoluene	1.5E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
2,4,6-Trichlorophenol	1.3E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
2,6-Dinitrotoluene	1.5E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
3,3-Dichlorobenzidine	3.0E-07	4.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
Anthracene	1.0E-07	2.0E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	3E-07	6.7E-07	
Benzoic Acid	7.5E-07	1.1E-06	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	2E-07	2.7E-07	
Benzo(a)anthracene	1.1E-07	2.0E-07	No	4E-03			HEAST			3E-05	5.0E-05	
Benzo(a)pyrene	9.8E-08	2.0E-07	No	4E-03			HEAST			2E-05	5.0E-05	
Benzo(b)fluoranthene	1.3E-07	2.0E-07	No	4E-03			HEAST			3E-05	5.0E-05	
Benzo(k)fluoranthene	1.1E-07	2.0E-07	No	4E-03			HEAST			3E-05	5.0E-05	
Bis(2-chloroethyl)ether	1.5E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
Bis(2ethylhexyl)phthalate	1.0E-07	2.0E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	5E-06	1.0E-05	
Butylbenzylphthalate	1.5E-07	2.0E-07	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	7E-07	1.0E-06	
Chrysene	1.2E-07	2.0E-07	No	4E-03			HEAST			3E-05	5.0E-05	
Dibenzo(a,h)anthracene	1.5E-07	2.0E-07	No	4E-03			HEAST			4E-05	5.0E-05	
Di-n-butylphthalate	6.9E-08	2.0E-07	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	7E-07	2.0E-06	
Fluoranthene	1.6E-07	2.0E-07	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	4E-06	5.0E-06	
Fluorene	1.5E-07	2.0E-07	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	4E-06	5.0E-06	
Hexachlorobenzene	1.5E-07	2.0E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	2E-04	2.5E-04	
Hexachlorobutadiene	1.5E-07	2.0E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	7E-05	1.0E-04	
Hexachloroethane	1.5E-07	2.0E-07	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	1E-04	2.0E-04	
Indeno(123cd)pyrene	1.5E-07	2.0E-07	No	4E-03			HEAST			4E-05	5.0E-05	
Isophrone	1.5E-07	2.0E-07	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	7E-07	1.0E-06	
Naphthalene	1.5E-07	2.0E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		4E-05	5.0E-05	
N-nitroso-di-n-propylamine	1.5E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
N-nitrosodiphenylamine	1.5E-07	2.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	
Pentachlorophenol	6.3E-07	9.8E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	2E-05	3.3E-05	
Phenanthrene	1.1E-07	2.0E-07	No	4E-03			HEAST			3E-05	5.0E-05	
Pyrene	1.5E-07	2.0E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	5E-06	6.7E-06	
PESTICIDES												
4,4'-DDE	2.1E-09	4.7E-09	No	NA			NA/IRIS,HEAST			NA	NA	
4,4'-DDT	3.5E-09	1.1E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	7E-06	2.2E-05	

TABLE E.3-1
SCENARIO 3
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	ABS. DOSE NONCANCER MEAN (mg/kg/day)	ABS. DOSE NONCANCER MAX. (mg/kg/day)	ABS. DOSE CANCER MEAN (mg/kg/day)	ABS. DOSE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CONVRN. FACTOR (kg/mg)	SKIN CONTACT RATE (mg/day)	ABS. FACTOR (unitless)	EXP. FREQ. (days/yr)	ED (yrs)	BODY WEIGHT (kg)	AVG. TIME NON-CANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7926.55	15000.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.94	10.10	1.0E-06	500	0.00	250	1	70.0	365	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	15.36	31.10	1.0E-06	500	0.00	250	1	70.0	365	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.36	15.10	1.0E-06	500	0.00	250	1	70.0	365	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.20	0.56	1.0E-06	500	0.00	250	1	70.0	365	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.30	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1242.33	2660.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	11.77	16.50	1.0E-06	500	0.00	250	1	70.0	365	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	20.52	42.50	1.0E-06	500	0.00	250	1	70.0	365	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	24.73	41.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.28	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	29090.75	50700.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.92	13.90	1.0E-06	500	0.00	250	1	70.0	365	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2511.11	5010.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	429.35	715.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.06	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	24.48	43.60	1.0E-06	500	0.00	250	1	70.0	365	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	85.51	201.00	1.0E-06	500	0.00	250	1	70.0	365	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.22	0.41	1.0E-06	500	0.00	250	1	70.0	365	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.69	1.70	1.0E-06	500	0.00	250	1	70.0	365	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10.24	18.90	1.0E-06	500	0.00	250	1	70.0	365	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.40	NA	1.0E-06	500	0.00	250	1	70.0	365	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.85	40.60	1.0E-06	500	0.00	250	1	70.0	365	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	54.57	93.30	1.0E-06	500	0.00	250	1	70.0	365	25550
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Carbon Tetrachloride	7.5E-09	1.7E-08	1.1E-10	2.4E-10	0.0031	0.0070	1.0E-06	500	0.50	250	1	70.0	365	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	250	1	70.0	365	25550
Tetrachloroethene	5.7E-09	2.4E-09	8.2E-11	3.5E-11	0.0023	0.0010	1.0E-06	500	0.50	250	1	70.0	365	25550
Toluene	6.9E-09	7.3E-09	9.8E-11	1.0E-10	0.0028	0.0030	1.0E-06	500	0.50	250	1	70.0	365	25550
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550
Xylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.05	250	1	70.0	365	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
2-Methylnaphthalene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4-Dinitrotoluene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
2,4,6-Trichlorophenol	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
2,6-Dinitrotoluene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
3,3-Dichlorobenzidine	1.2E-07	2.1E-07	1.7E-09	3.0E-09	0.50	0.87	1.0E-06	500	0.05	250	1	70.0	365	25550
Anthracene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzoic Acid	2.1E-07	5.4E-07	3.0E-09	7.7E-09	0.85	2.20	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)anthracene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(a)pyrene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(b)fluoranthene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Benzo(k)fluoranthene	7.7E-08	1.1E-07	1.1E-09	1.5E-09	0.31	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Bis(2-chloroethyl)ether	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Bis(2ethylhexyl)phthalate	1.8E-08	1.1E-07	2.3E-10	1.5E-09	0.07	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Butylbenzylphthalate	8.1E-08	4.9E-07	1.2E-09	7.0E-09	0.33	2.00	1.0E-06	500	0.05	250	1	70.0	365	25550
Chrysene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Dibenzo(a,h)anthracene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Di-n-butylphthalate	6.8E-08	6.4E-07	9.6E-10	9.1E-09	0.28	2.60	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluoranthene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Fluorene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Hexachlorobenzene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Hexachlorobutadiene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Hexachloroethane	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Indeno(123cd)pyrene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Isophrone	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Naphthalene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
N-nitroso-di-n-propylamine	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
N-nitrosodiphenylamine	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Pentachlorophenol	3.1E-07	5.4E-07	4.4E-09	7.7E-09	1.26	2.20	1.0E-06	500	0.05	250	1	70.0	365	25550
Phenanthrene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
Pyrene	6.1E-08	1.1E-07	8.7E-10	1.5E-09	0.25	0.43	1.0E-06	500	0.05	250	1	70.0	365	25550
PESTICIDES														
4,4'-DDE	1.9E-09	8.8E-10	2.7E-11	1.3E-11	0.0076	0.0036	1.0E-06	500	0.05	250	1	70.0	365	25550
4,4'-DDT	2.4E-09	4.2E-09	3.5E-11	5.9E-11	0.0099	0.0170	1.0E-06	500	0.05	250	1	70.0	365	25550

TABLE E.3-2
SCENARIO 3
INGESTION OF CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	INGESTION RATE (mg/day)	CONVRN. FACTOR (kg/mg)	EXP. FREQ. (days/yr)	ED (yrs)	REL. ABS. FACTOR (unitless)	BODY WEIGHT (kg)	AVG.TIME NON-CANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Aluminum	3.7E-02	7.0E-02	5.3E-04	1.0E-03	7926.55	15000.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Antimony	2.6E-05	4.7E-05	4.0E-07	6.8E-07	5.94	10.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Arsenic	7.2E-05	1.5E-04	1.0E-06	2.1E-06	15.36	31.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Barium	4.4E-05	7.1E-05	6.3E-07	1.0E-06	9.36	15.10	480	1.0E-06	250	1	1.00	70.0	365	25550
Beryllium	9.6E-07	2.6E-06	1.4E-08	3.8E-06	0.20	0.56	480	1.0E-06	250	1	1.00	70.0	365	25550
Cadmium	1.4E-06	0.0E+00	2.0E-06	0.0E+00	0.30	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Calcium	5.8E-03	1.2E-02	8.3E-05	1.8E-04	1242.33	2660.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Chromium	5.5E-05	7.7E-05	7.9E-07	1.1E-06	11.77	16.50	480	1.0E-06	250	1	1.00	70.0	365	25550
Cobalt	9.6E-05	2.0E-04	1.4E-06	2.9E-06	20.52	42.50	480	1.0E-06	250	1	1.00	70.0	365	25550
Copper	1.2E-04	1.9E-04	1.7E-06	2.8E-06	24.73	41.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Cyanide	1.3E-06	0.0E+00	1.9E-06	0.0E+00	0.26	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Iron	1.4E-01	2.4E-01	2.0E-03	3.4E-03	29090.75	50700.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Lead	9.7E-06	2.0E-05	1.4E-07	2.8E-07	6.92	13.90	480	1.0E-06	250	1	0.30	70.0	365	25550
Magnesium	1.2E-02	2.4E-02	1.7E-04	3.4E-04	2511.11	5010.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Manganese	2.0E-03	3.4E-03	2.9E-05	4.8E-05	429.35	715.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Mercury	2.6E-07	0.0E+00	3.7E-09	0.0E+00	0.06	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Nickel	1.1E-04	2.0E-04	1.6E-06	2.9E-06	24.48	43.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Potassium	4.0E-04	9.4E-04	5.7E-06	1.3E-05	85.51	201.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Selenium	1.1E-06	1.9E-06	1.5E-06	2.6E-06	0.22	0.41	480	1.0E-06	250	1	1.00	70.0	365	25550
Silver	3.2E-06	8.0E-06	4.6E-06	1.1E-07	0.69	1.70	480	1.0E-06	250	1	1.00	70.0	365	25550
Sodium	4.8E-05	8.9E-05	6.9E-07	1.3E-06	10.24	18.90	480	1.0E-06	250	1	1.00	70.0	365	25550
Thallium	1.9E-06	0.0E+00	2.7E-08	0.0E+00	0.40	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Vanadium	6.9E-05	1.9E-04	1.3E-06	2.7E-06	18.85	40.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Zinc	2.6E-04	4.4E-04	3.7E-06	6.3E-06	54.57	93.30	480	1.0E-06	250	1	1.00	70.0	365	25550
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Carbon Tetrachloride	1.4E-06	3.3E-06	2.1E-10	4.7E-10	0.0031	0.0070	480	1.0E-06	250	1	1.00	70.0	365	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Tetrachloroethene	1.1E-06	4.7E-09	1.6E-10	6.7E-11	0.0023	0.0010	480	1.0E-06	250	1	1.00	70.0	365	25550
Toluene	1.3E-06	1.4E-06	1.9E-10	2.0E-10	0.0026	0.0030	480	1.0E-06	250	1	1.00	70.0	365	25550
Trichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
Xylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	480	1.0E-06	250	1	1.00	70.0	365	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
2-Methylnaphthalene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4-Dinitrotoluene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
2,4,5-Trichlorophenol	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
2,6-Dinitrotoluene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
3,3-Dichlorobenzidine	2.3E-06	4.1E-06	3.3E-08	5.8E-06	0.50	0.87	480	1.0E-06	250	1	1.00	70.0	365	25550
Anthracene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzoic Acid	4.0E-06	1.0E-05	5.7E-06	1.5E-07	0.85	2.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)anthracene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(a)pyrene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(b)fluoranthene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Benzo(k)fluoranthene	1.5E-06	2.0E-06	2.1E-06	2.9E-06	0.31	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Bis(2-chloroethyl)ether	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Bis(2ethylhexyl)phthalate	3.1E-07	2.0E-06	4.4E-09	2.9E-06	0.07	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Butylbenzylphthalate	1.6E-06	9.4E-06	2.2E-06	1.3E-07	0.33	2.00	480	1.0E-06	250	1	1.00	70.0	365	25550
Chrysene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Dibenzo(a,h)anthracene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Di-n-butylphthalate	1.3E-06	1.2E-05	1.9E-06	1.7E-07	0.28	2.60	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluoranthene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Fluorene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Hexachlorobenzene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Hexachlorobutadiene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Hexachloroethane	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Indeno(123cd)pyrene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Isophrone	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Naphthalene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
N-nitroso-di-n-propylamine	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
N-nitrosodiphenylamine	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Pentachlorophenol	5.9E-06	1.0E-05	8.4E-06	1.5E-07	1.26	2.20	480	1.0E-06	250	1	1.00	70.0	365	25550
Phenanthrene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
Pyrene	1.2E-06	2.0E-06	1.7E-06	2.9E-06	0.25	0.43	480	1.0E-06	250	1	1.00	70.0	365	25550
PESTICIDES														
4,4'-DDE	1.1E-06	5.1E-09	1.5E-10	7.2E-11	0.006	0.004	480	1.0E-06	250	1	0.30	70.0	365	25550
4,4'-DDT	1.4E-06	2.4E-06	2.0E-10	3.4E-10	0.010	0.017	480	1.0E-06	250	1	0.30	70.0	365	25550

TABLE E.3-3
SCENARIO 3
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
TANK FARM FIVE

COMPOUND NAME	INTAKE NONCANCER MEAN (mg/kg/day)	INTAKE NONCANCER MAX. (mg/kg/day)	INTAKE CANCER MEAN (mg/kg/day)	INTAKE CANCER MAX. (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	INHAL. RATE (m3/day)	EXP. FREQ. (days/yr)	ED (yrs)	RELATIVE ABS. FACTOR (unitless)	BODY WEIGHT (kg)	AVG. TIME NON-CANCER (days)	AVG. TIME CANCER (days)
INORGANICS														
Aluminum	5.75E-06	1.09E-05	8.22E-06	1.56E-07	3.71E-08	7926.55	15000.00	20	250	1	1.0	70	365	25550
Antimony	4.32E-09	7.33E-09	6.16E-11	1.05E-10	3.71E-08	5.94	10.10	20	250	1	1.0	70	365	25550
Arsenic	1.12E-08	2.26E-08	1.59E-10	3.23E-10	3.71E-08	15.36	31.10	20	250	1	1.0	70	365	25550
Barium	6.79E-09	1.10E-08	9.70E-11	1.57E-10	3.71E-08	9.36	15.10	20	250	1	1.0	70	365	25550
Beryllium	1.46E-10	4.07E-10	2.12E-12	5.81E-12	3.71E-08	0.20	0.56	20	250	1	1.0	70	365	25550
Cadmium	2.18E-10	0.00E+00	3.12E-12	0.00E+00	3.71E-08	0.30	NA	20	250	1	1.0	70	365	25550
Calcium	9.02E-07	1.93E-06	1.29E-08	2.76E-08	3.71E-08	1242.33	2660.00	20	250	1	1.0	70	365	25550
Chromium	8.55E-09	1.20E-08	1.22E-10	1.71E-10	3.71E-08	11.77	16.50	20	250	1	1.0	70	365	25550
Cobalt	1.49E-08	3.09E-08	2.13E-10	4.41E-10	3.71E-08	20.52	42.50	20	250	1	1.0	70	365	25550
Copper	1.80E-08	2.98E-08	2.57E-10	4.25E-10	3.71E-08	24.73	41.00	20	250	1	1.0	70	365	25550
Cyanide	2.03E-10	0.00E+00	2.91E-12	0.00E+00	3.71E-08	0.26	NA	20	250	1	1.0	70	365	25550
Iron	2.11E-05	3.68E-05	3.02E-07	5.26E-07	3.71E-08	29090.75	50700.00	20	250	1	1.0	70	365	25550
Lead	5.02E-09	1.01E-08	7.18E-11	1.44E-10	3.71E-08	6.92	13.90	20	250	1	1.0	70	365	25550
Magnesium	1.82E-06	3.64E-06	2.60E-08	5.20E-08	3.71E-08	2511.11	5010.00	20	250	1	1.0	70	365	25550
Manganese	3.12E-07	5.19E-07	4.46E-09	7.42E-09	3.71E-08	429.35	715.00	20	250	1	1.0	70	365	25550
Mercury	3.99E-11	0.00E+00	5.70E-13	0.00E+00	3.71E-08	0.06	NA	20	250	1	1.0	70	365	25550
Nickel	1.78E-08	3.17E-08	2.54E-10	4.52E-10	3.71E-08	24.48	43.60	20	250	1	1.0	70	365	25550
Potassium	6.21E-06	1.46E-07	8.87E-10	2.08E-09	3.71E-08	85.51	201.00	20	250	1	1.0	70	365	25550
Selenium	1.63E-10	2.98E-10	2.32E-12	4.25E-12	3.71E-08	0.22	0.41	20	250	1	1.0	70	365	25550
Silver	5.01E-10	1.23E-09	7.15E-12	1.76E-11	3.71E-08	0.69	1.70	20	250	1	1.0	70	365	25550
Sodium	7.44E-09	1.37E-08	1.06E-10	1.96E-10	3.71E-08	10.24	18.90	20	250	1	1.0	70	365	25550
Thallium	2.91E-10	0.00E+00	4.15E-12	0.00E+00	3.71E-08	0.40	NA	20	250	1	1.0	70	365	25550
Vanadium	1.37E-08	2.95E-08	1.96E-10	4.21E-10	3.71E-08	18.85	40.60	20	250	1	1.0	70	365	25550
Zinc	3.96E-08	6.77E-08	5.66E-10	9.66E-10	3.71E-08	54.57	93.30	20	250	1	1.0	70	365	25550
VOLATILES														
1,1-Dichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
1,1,1-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
1,2-Dichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
1,3-Dichloropropane (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
1,3-Dichloropropane (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Carbon Tetrachloride	2.22E-12	5.08E-12	3.17E-14	7.26E-14	3.71E-08	0.0031	0.0070	20	250	1	1.0	70	365	25550
Chloroform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Ethylbenzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Tetrachloroethene	1.70E-12	7.26E-13	2.43E-14	1.04E-14	3.71E-08	0.0023	0.0010	20	250	1	1.0	70	365	25550
Toluene	2.04E-12	2.18E-12	2.91E-14	3.11E-14	3.71E-08	0.0028	0.0030	20	250	1	1.0	70	365	25550
Trichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
Xylene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-08	NA	NA	20	250	1	1.0	70	365	25550
SEMIVOLATILES														
1,4-Dichlorobenzene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
2-Methylnaphthalene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
2,4-Dinitrotoluene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
2,4,6-Trichlorophenol	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
2,6-Dinitrotoluene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
3,3-Dichlorobenzidine	3.62E-10	6.32E-10	5.18E-12	9.02E-12	3.71E-08	0.50	0.87	20	250	1	1.0	70	365	25550
Anthracene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Benzoic Acid	6.17E-10	1.60E-09	8.82E-12	2.28E-11	3.71E-08	0.85	2.20	20	250	1	1.0	70	365	25550
Benzo(a)anthracene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Benzo(a)pyrene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Benzo(b)fluoranthene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Benzo(k)fluoranthene	2.28E-10	3.12E-10	3.26E-12	4.46E-12	3.71E-08	0.31	0.43	20	250	1	1.0	70	365	25550
Bis(2-chloroethyl)ether	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Bis(2ethylhexyl)phthalate	4.76E-11	3.12E-10	6.81E-13	4.46E-12	3.71E-08	0.07	0.43	20	250	1	1.0	70	365	25550
Butylbenzylphthalate	2.40E-10	1.45E-09	3.43E-12	2.07E-11	3.71E-08	0.33	2.00	20	250	1	1.0	70	365	25550
Chrysene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Dibenzo(a,h)anthracene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Di-n-butylphthalate	2.03E-10	1.89E-09	2.90E-12	2.70E-11	3.71E-08	0.28	2.60	20	250	1	1.0	70	365	25550
Fluoranthene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Fluorene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Hexachlorobenzene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Hexachlorobutadiene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Hexachloroethane	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Indeno(123cd)pyrene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Isophrone	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Naphthalene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
N-nitroso-di-n-propylamine	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
N-nitrosodiphenylamine	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Pentachlorophenol	9.14E-10	1.60E-09	1.31E-11	2.28E-11	3.71E-08	1.26	2.20	20	250	1	1.0	70	365	25550
Phenanthrene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
Pyrene	1.81E-10	3.12E-10	2.59E-12	4.46E-12	3.71E-08	0.25	0.43	20	250	1	1.0	70	365	25550
PESTICIDES														
4,4'-DDE	5.54E-12	2.61E-12	7.91E-14	3.73E-14	3.71E-08	0.0076	0.0036	20	250	1	1.0	70	365	25550
4,4'-DDT	7.17E-12	1.23E-11	1.02E-13	1.76E-13	3.71E-08	0.0099	0.0170	20	250	1	1.0	70	365	25550

TABLE E.3-4
SCENARIO 3
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK	TOTAL EXPOSURE RISK	
										1.1E-06	3.5E-06	MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL										1.9E-06	6.5E-06	MAX
VOLATILES												
1,1-Dichloroethane	0.0E+00	0.0E+00	No	NA	C	Mammary gland, hemangiosarcoma, liver	NA/IRIS,HEAST	NA	NA			
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA			
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA			
1,2-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA			
1,2-Dichloropropane	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver	Gavage/HEAST	NA	NA			
1,3-Dichloropropane (ds)	0.0E+00	0.0E+00	No	1.8E-01	B2	Forestomach, liver, adrenal, thyriod	Gavage/HEAST	NA	NA			
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	1.8E-01	B2	Forestomach, liver, adrenal, thyriod	Gavage/HEAST	NA	NA			
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA			
Bromodichloromethane	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	NA	NA			
Bromoform	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesion in large intestine	Gavage/IRIS	NA	NA			
Carbon Tetrachloride	1.1E-10	2.4E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	1.4E-11	3.2E-11			
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	NA	NA			
Dibromochloromethane	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	NA	NA			
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA			
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA			
Tetrachloroethene	8.2E-11	3.5E-11	No	5.10E-02	B2	Liver	Gavage/HEAST	4.2E-12	1.8E-12			
Toluene	9.8E-11	1.0E-10	No	NA	D		NA/IRIS,HEAST	NA	NA			
Trichloroethene	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA			
Xylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA			
SEMIVOLATILES												
1,4-Dichlorobenzene	8.7E-10	1.5E-09	No	2.40E-02	C	Liver	Gavage/HEAST	2.1E-11	3.6E-11			
2-Methylnaphthalene	8.7E-10	1.5E-09	No	NA			NA/IRIS,HEAST	NA	NA			
2,4-Dinitrotoluene	8.7E-10	1.5E-09	No	6.8E-01	B2	Liver, mammary gland	Diet/IRIS	5.9E-10	1.0E-09			
2,4,6-Trichlorophenol	8.7E-10	1.5E-09	No	1.1E-02	B2	Leukemia	Diet/IRIS	9.6E-12	1.7E-11			
2,6-Dinitrotoluene	8.7E-10	1.5E-09	No	6.8E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	5.9E-10	1.0E-09			
3,3-Dichlorobenzidine	1.7E-09	3.0E-09	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	7.6E-10	1.4E-09			
Anthracene	8.7E-10	1.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Benzoic Acid	3.0E-09	7.7E-09	No	NA			NA/IRIS,HEAST	NA	NA			
Benzo(a)anthracene	8.7E-10	1.5E-09	No	NA	B2	Liver, Lung, Skin	IRIS	NA	NA			
Benzo(a)pyrene	8.7E-10	1.5E-09	No	NA	B2	Stomach, Lung	IRIS	NA	NA			
Benzo(b)fluoranthene	8.7E-10	1.5E-09	No	NA	B2	Lung, Thorax, Skin	IRIS	NA	NA			
Benzo(k)fluoranthene	1.1E-09	1.5E-09	No	NA	B2	Lung, Thorax, Skin	IRIS	NA	NA			
Bis(2-chloroethyl)ether	8.7E-10	1.5E-09	No	1.1E+00	B2	Liver	Gavage/IRIS	9.6E-10	1.7E-09			
Bis(2ethylhexyl)phthalate	2.3E-10	1.5E-09	No	1.40E-02	B2	Liver	IRIS	3.2E-12	2.1E-11			
Butylbenzylphthalate	1.2E-09	7.0E-09	No	NA	C	Leukemia	Diet/IRIS,HEAST	NA	NA			
Chrysene	8.7E-10	1.5E-09	No	NA	B2	Malignant lymphoma	IRIS	NA	NA			
Dibenzo(a,h)anthracene	8.7E-10	1.5E-09	No	NA	B2	Lung, Mammary	IRIS	NA	NA			
Di-n-butylphthalate	9.8E-10	9.1E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluoranthene	8.7E-10	1.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Fluorene	8.7E-10	1.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Hexachlorobenzene	8.7E-10	1.5E-09	No	1.6E+00	B2	Hepatocellular carcinomas	Diet/IRIS	1.4E-09	2.4E-09			
Hexachlorobutadiene	8.7E-10	1.5E-09	No	7.8E-02	C	Renal tubular adinomas and adenocarcinomas	Diet/IRIS	6.8E-11	1.2E-10			
Hexachloroethane	8.7E-10	1.5E-09	No	1.4E-02	C	Hepatocellular carcinomas	Gavage/IRIS	1.2E-11	2.1E-11			
Indeno(123cd)pyrene	8.7E-10	1.5E-09	No	NA	B2	Lung, Skin	IRIS	NA	NA			
Isophrone	8.7E-10	1.5E-09	No	4.1E-03	C	Preputial gland carcinomas and kidney tumors	Gavage/IRIS	3.6E-12	6.2E-12			
Naphthalene	8.7E-10	1.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
N-nitroso-di-n-propylamine	8.7E-10	1.5E-09	No	7.0E+00	B2	Hepatocellular carcinomas	Water/IRIS	6.1E-09	1.1E-08			
N-nitrosodiphenylamine	8.7E-10	1.5E-09	No	4.9E-03	B2	Transitional cell carcinoma of the bladder	Diet/IRIS	4.3E-12	7.4E-12			
Pentachlorophenol	4.4E-09	7.7E-09	No	1.2E-01	B2	Hepatocellular adenoma, carcinomas, pheochromocytoma	Oral/IRIS	5.3E-10	9.2E-10			
Phenanthrene	8.7E-10	1.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
Pyrene	8.7E-10	1.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA			
PESTICIDES												
4,4'-DDE	2.7E-11	1.3E-11	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	9.1E-12	4.3E-12			
4,4'-DDT	3.5E-11	5.9E-11	No	3.4E-01	B2	Liver tumor	Diet/IRIS	1.2E-11	2.0E-11			

TABLE E.3-5
SCENARIO 3
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK
										3E-06 MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL										7E-06 MAXIMUM
INORGANICS										
Aluminum	5.3E-04	1.0E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	
Antimony	4.0E-07	6.8E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Arsenic	1.0E-06	2.1E-06	No	1.75E+00	A	Skin	Water/IRIS	1.8E-06	3.7E-06	
Barium	6.3E-07	1.0E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Beryllium	1.4E-08	3.8E-08	No	4.30E+00	B2	Gross tumors, all sites combined	Water/IRIS	5.9E-08	1.6E-07	
Cadmium	2.0E-08	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Calcium	8.3E-05	1.8E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Chromium	7.9E-07	1.1E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Cobalt	1.4E-06	2.9E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Copper	1.7E-06	2.8E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	
Cyanide	1.9E-08	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Iron	2.0E-03	3.4E-03	No	NA			NA/IRIS,HEAST	NA	NA	
Lead	1.4E-07	2.8E-07	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	
Magnesium	1.7E-04	3.4E-04	No	NA			NA/IRIS,HEAST	NA	NA	
Manganese	2.9E-05	4.8E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	
Mercury	3.7E-09	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Nickel	1.6E-06	2.9E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Potassium	5.7E-06	1.3E-05	No	NA			NA/IRIS,HEAST	NA	NA	
Selenium	1.5E-08	2.6E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Silver	4.6E-08	1.1E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	
Sodium	6.9E-07	1.3E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Thallium	2.7E-08	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
Vanadium	1.3E-06	2.7E-06	No	NA			NA/IRIS,HEAST	NA	NA	
Zinc	3.7E-06	6.3E-06	No	NA			NA/IRIS,HEAST	NA	NA	
VOLATILES										
1,1-Dichloroethane	0.0E+00	0.0E+00	No	NA	C	Mammary gland, hemangiosarcoma, liver	NA/IRIS,HEAST	NA	NA	
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	
1,2-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver	Gavage/HEAST	NA	NA	
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	1.8E-01	B2	Forestomach, liver, adrenal, thyriod	Gavage/HEAST	NA	NA	
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	1.8E-01	B2	Forestomach, liver, adrenal, thyriod	Gavage/HEAST	NA	NA	
Benzene	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	NA	NA	
Bromoform	0.0E+00	0.0E+00	No	7.90E-03	B2	Neoplastic lesion in large intestine	Gavage/IRIS	NA	NA	
Carbon Tetrachloride	2.1E-10	4.7E-10	No	1.30E-01	B2	Hepatocellular carcinoma	Oral/IRIS	2.7E-11	6.1E-11	
Chloroform	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney Tumors	Oral/IRIS	NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular carcinoma or adenomas	Gavage/IRIS	NA	NA	
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
Styrene	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA	
Tetrachloroethene	1.6E-10	6.7E-11	No	5.10E-02	B2	Liver	Gavage/HEAST	8.0E-12	3.4E-12	
Toluene	1.9E-10	2.0E-10	No	NA	D		NA/IRIS,HEAST	NA	NA	
Trichloroethene	0.0E+00	0.0E+00	No	1.10E-02	B2	Liver	Gavage/HEAST	NA	NA	
Xylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	
SEMIVOLATILES										
1,4-Dichlorobenzene	1.7E-08	2.9E-08	No	2.40E-02	C	Liver	Gavage/HEAST	4.0E-10	6.9E-10	
2-Methylnaphthalene	1.7E-08	2.9E-08	No	NA			NA/IRIS,HEAST	NA	NA	
2,4-Dinitrotoluene	1.7E-08	2.9E-08	No	6.8E-01	B2	Liver, mammary gland	Diet/IRIS	1.1E-08	2.0E-08	
2,4,6-Trichlorophenol	1.7E-08	2.9E-08	No	1.1E-02	B2	Leukemia	Diet/IRIS	1.8E-10	3.2E-10	
2,6-Dinitrotoluene	1.7E-08	2.9E-08	No	6.8E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS	1.1E-08	2.0E-08	
3,3-Dichlorobenzidine	3.3E-08	5.8E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	1.5E-08	2.6E-08	
Anthracene	1.7E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Benzoic Acid	5.7E-08	1.5E-07	No	NA			NA/IRIS,HEAST	NA	NA	
Benzo(a)anthracene	1.7E-08	2.9E-08	No	1.15E+01	B2	Liver, Lung, Skin	IRIS	1.9E-07	3.3E-07	
Benzo(a)pyrene	1.7E-08	2.9E-08	No	1.15E+01	B2	Stomach, Lung	IRIS	1.9E-07	3.3E-07	
Benzo(b)fluoranthene	1.7E-08	2.9E-08	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	1.9E-07	3.3E-07	
Benzo(k)fluoranthene	2.1E-08	2.9E-08	No	1.15E+01	B2	Lung, Thorax, Skin	IRIS	2.4E-07	3.3E-07	
Bis(2-chloroethyl)ether	1.7E-08	2.9E-08	No	1.1E+00	B2	Liver	Gavage/IRIS	1.8E-08	3.2E-08	
Bis(2ethylhexyl)phthalate	4.4E-09	2.9E-08	No	1.40E-02	B2	Liver	IRIS	6.2E-11	4.0E-10	
Butylbenzylphthalate	2.2E-08	1.3E-07	No	NA	C	Leukemia	Diet/IRIS,HEAST	NA	NA	
Chrysene	1.7E-08	2.9E-08	No	1.15E+01	B2	Malignant lymphoma	IRIS	1.9E-07	3.3E-07	
Dibenzo(a,h)anthracene	1.7E-08	2.9E-08	No	1.15E+01	B2	Lung, Mammary	IRIS	1.9E-07	3.3E-07	
Di-n-butylphthalate	1.9E-08	1.7E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluoranthene	1.7E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Fluorene	1.7E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Hexachlorobenzene	1.7E-08	2.9E-08	No	1.6E+00	B2	Hepatocellular carcinomas	Diet/IRIS	2.7E-08	4.6E-08	
Hexachlorobutadiene	1.7E-08	2.9E-08	No	7.8E-02	C	Renal tubular adinomas and adenocarcinomas	Diet/IRIS	1.3E-09	2.3E-09	
Hexachloroethane	1.7E-08	2.9E-08	No	1.4E-02	C	Hepatocellular carcinomas	Gavage/IRIS	2.3E-10	4.0E-10	
Indeno(123cd)pyrene	1.7E-08	2.9E-08	No	1.15E+01	B2	Lung, Skin	IRIS	1.9E-07	3.3E-07	
Isophrone	1.7E-08	2.9E-08	No	4.1E-03	C	Preputial gland carcinomas and kidney tumors	Gavage/IRIS	6.9E-11	1.2E-10	
Naphthalene	1.7E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
N-nitroso-di-n-propylamine	1.7E-08	2.9E-08	No	7.0E+00	B2	Hepatocellular carcinomas	Water/IRIS	1.2E-07	2.0E-07	
N-nitrosodiphenylamine	1.7E-08	2.9E-08	No	4.9E-03	B2	Transitional cell carcinoma of the bladder	Diet/IRIS	8.2E-11	1.4E-10	
Pentachlorophenol	8.4E-08	1.5E-07	No	1.2E-01	B2	Hepatocellular adenoma, carcinomas, pheochromocytoma	Oral/IRIS	1.0E-08	1.8E-08	
Phenanthrene	1.7E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
Pyrene	1.7E-08	2.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	
PESTICIDES										
4,4'-DDE	1.5E-10	7.2E-11	No	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS	5.2E-11	2.5E-11	
4,4'-DDT	2.0E-10	3.4E-10	No	3.4E-01	B2	Liver tumor	Diet/IRIS	6.8E-11	1.2E-10	

TABLE E.3-6
SCENARIO 3
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEMICAL RISK MEAN	CHEMICAL RISK MAX.	TOTAL PATHWAY RISK	
										1E-08	MEAN
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST										2E-08	MAXIMU
INORGANICS											
Aluminum	8.2E-08	1.6E-07	No	NA			NA/IRIS,HEAST	NA	NA		
Antimony	8.2E-11	1.0E-10	No	NA			NA/IRIS,HEAST	NA	NA		
Arsenic	1.6E-10	3.2E-10	No	5.0E+01	A	Respiratory Tract	Occupational/IRIS	8.0E-09	1.6E-08		
Barium	9.7E-11	1.6E-10	No	NA			NA/IRIS,HEAST	NA	NA		
Beryllium	2.1E-12	5.8E-12	No	8.4E+00	B2	Lung	Occupational/IRIS	1.8E-11	4.9E-11		
Cadmium	3.1E-12	0.0E+00	No	6.3E+00	B1	Respiratory Tract	Occupational/IRIS	2.0E-11	0.0E+00		
Calcium	1.3E-08	2.6E-08	No	NA			NA/IRIS,HEAST	NA	NA		
Chromium	1.2E-10	1.7E-10	No	4.2E+01	A	Lung	Occupational/IRIS	5.1E-09	7.2E-09		
Cobalt	2.1E-10	4.4E-10	No	NA	D		NA/IRIS,HEAST	NA	NA		
Copper	2.6E-10	4.3E-10	No	NA	D		NA/IRIS,HEAST	NA	NA		
Cyanide	2.9E-12	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Iron	3.0E-07	5.3E-07	No	NA			NA/IRIS,HEAST	NA	NA		
Lead	7.2E-11	1.4E-10	No	NA	B2		NA/IRIS,HEAST	NA	NA		
Magnesium	2.6E-08	5.2E-08	No	NA			NA/IRIS,HEAST	NA	NA		
Manganese	4.6E-09	7.4E-09	No	NA	D		NA/IRIS,HEAST	NA	NA		
Mercury	5.7E-13	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Nickel	2.5E-10	4.5E-10	No	8.4E-01	A	Lung and nasal tumors	Occupational/IRIS	2.1E-10	3.8E-10		
Potassium	8.9E-10	2.1E-09	No	NA			NA/IRIS,HEAST	NA	NA		
Selenium	2.3E-12	4.3E-12	No	NA	D		NA/IRIS,HEAST	NA	NA		
Silver	7.2E-12	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA		
Sodium	1.1E-10	2.0E-10	No	NA			NA/IRIS,HEAST	NA	NA		
Thallium	4.2E-12	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA		
Vanadium	2.0E-10	4.2E-10	No	NA			NA/IRIS,HEAST	NA	NA		
Zinc	5.7E-10	9.7E-10	No	NA			NA/IRIS,HEAST	NA	NA		
VOLATILES											
1,1-Dichloroethane	0.0E+00	0.0E+00	No	NA	C	Mammary gland, liver	IRIS,HEAST	NA	NA		
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA		
1,2-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA	B2		NA/IRIS,HEAST	NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA		
Benzene	0.0E+00	0.0E+00	No	2.9E-02	A	Leukemia	Occupational/IRIS	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA		
Bromoform	0.0E+00	0.0E+00	No	3.9E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	NA	NA		
Carbon Tetrachloride	3.2E-14	7.3E-14	No	1.3E-01	B2	Liver	Gavage/HEAST	4.1E-15	9.4E-15		
Chloroform	0.0E+00	0.0E+00	No	6.1E-02	B2	Liver	IRIS	NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA		
Ethylbenzene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
Styrene	0.0E+00	0.0E+00	No	2.0E-03	B2	Leukemia	HEAST	NA	NA		
Tetrachloroethene	2.4E-14	1.0E-14	No	1.8E-03	B2	Leukemia, Liver	HEAST	4.4E-17	1.9E-17		
Toluene	2.9E-14	3.1E-14	No	NA	D		NA/IRIS,HEAST	NA	NA		
Trichloroethene	0.0E+00	0.0E+00	No	1.7E-02	B2	Lung	HEAST	NA	NA		
Xylene	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA		
SEMIVOLATILES											
1,4-Dichlorobenzene	2.6E-12	4.5E-12	No	NA	C		HEAST	NA	NA		
2-Methylnaphthalene	2.6E-12	4.5E-12	No	NA			NA/IRIS,HEAST	NA	NA		
2,4-Dinitrotoluene	2.6E-12	4.5E-12	No	NA	B2	Liver, mammary	IRIS	NA	NA		
2,4,6-Trichlorophenol	2.6E-12	4.5E-12	No	9.0E-04	B2	Leukemia	IRIS	2.3E-15	4.0E-15		
2,6-Dinitrotoluene	2.6E-12	4.5E-12	No	NA	B2	Liver, mammary	NA/IRIS,HEAST	NA	NA		
3,3-Dichlorobenzidine	5.2E-12	9.0E-12	No	NA	B2		NA/IRIS,HEAST	NA	NA		
Anthracene	2.6E-12	4.5E-12	No	NA	D		NA/IRIS,HEAST	NA	NA		
Benzoic Acid	6.6E-12	2.3E-11	No	NA	D		NA/IRIS,HEAST	NA	NA		
Benzo(a)anthracene	2.6E-12	4.5E-12	No	6.1E+00	B2		IRIS	1.6E-11	2.7E-11		
Benzo(a)pyrene	2.6E-12	4.5E-12	No	6.1E+00	B2	Respiratory tract	Inhalation/HEAST	1.6E-11	2.7E-11		
Benzo(b)fluoranthene	2.6E-12	4.5E-12	No	6.1E+00	B2		IRIS	1.6E-11	2.7E-11		
Benzo(k)fluoranthene	3.3E-12	4.5E-12	No	6.1E+00	B2		IRIS	2.0E-11	2.7E-11		
Bis(2-chloroethyl)ether	2.6E-12	4.5E-12	No	1.1E+00	B2	Liver	Oral/HEAST	2.8E-12	4.9E-12		
Bis(2ethylhexyl)phthalate	6.6E-13	4.5E-12	No	NA	B2		NA/IRIS,HEAST	NA	NA		
Butylbenzylphthalate	3.4E-12	2.1E-11	No	NA	C		NA/IRIS,HEAST	NA	NA		
Chrysene	2.6E-12	4.5E-12	No	6.1E+00	B2		IRIS	1.6E-11	2.7E-11		
Dibenzo(a,h)anthracene	2.6E-12	4.5E-12	No	6.1E+00	B2		IRIS	1.6E-11	2.7E-11		
Di-n-butylphthalate	2.9E-12	2.7E-11	No	NA	D		NA/IRIS,HEAST	NA	NA		
Fluoranthene	2.6E-12	4.5E-12	No	NA	D		NA/IRIS,HEAST	NA	NA		
Fluorene	2.6E-12	4.5E-12	No	NA	D		NA/IRIS,HEAST	NA	NA		
Hexachlorobenzene	2.6E-12	4.5E-12	No	1.6E+00	B2	Hepatocellular carcinoma	Oral/IRIS	4.1E-12	7.1E-12		
Hexachlorobutadiene	2.6E-12	4.5E-12	No	7.8E-02	C	Kidney	Diet/IRIS	2.0E-13	3.5E-13		
Hexachloroethane	2.6E-12	4.5E-12	No	1.4E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.6E-14	6.2E-14		
Indeno(123cd)pyrene	2.6E-12	4.5E-12	No	6.1E+00	B2		IRIS	1.6E-11	2.7E-11		
Isophrone	2.6E-12	4.5E-12	No	NA	C		NA/IRIS,HEAST	NA	NA		
Naphthalene	2.6E-12	4.5E-12	No	NA	D		NA/IRIS,HEAST	NA	NA		
N-nitroso-di-n-propylamine	2.6E-12	4.5E-12	No	NA	B2		NA/IRIS,HEAST	NA	NA		
N-nitrosodiphenylamine	2.6E-12	4.5E-12	No	NA	B2		NA/IRIS,HEAST	NA	NA		
Pentachlorophenol	1.3E-11	2.3E-11	No	NA	B2		NA/IRIS,HEAST	NA	NA		
Phenanthrene	2.6E-12	4.5E-12	No	NA	D		NA/IRIS,HEAST	NA	NA		
Pyrene	2.6E-12	4.5E-12	No	NA	D		NA/IRIS,HEAST	NA	NA		
PESTICIDES											
4,4'-DDE	7.9E-14	3.7E-14	No	NA	B2		HEAST	NA	NA		
4,4'-DDT	1.0E-13	1.8E-13	No	3.4E-01	B2	Liver	Diet/IRIS,HEAST	3.5E-14	6.0E-14		

TABLE E.3-7
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MODIFYING FACTORS	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)	TOTAL EXPOSURE (HI)	
												1.5E-04	2.0E-01	MEAN
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL												2.6E-04	3.6E-01	MAX
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	No	1E+00		None	HEAST	100		NA	NA			
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	9E-01		Hepatotoxicity	HEAST	100		NA	NA			
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	4E-02		Clinical chemistry alterations	Water/HEAST	100		NA	NA			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA			
1,2-Dichloroethane	0.0E+00	0.0E+00	No	1E-01		Decreased hematocrit and hemoglobin	Gavage/HEAST	300		NA	NA			
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA			
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	No	3E-03		Increased organ weight	Diet/HEAST	1000		NA	NA			
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	No	3E-03		Increased organ weight	Diet/HEAST	1000		NA	NA			
Benzene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA			
Bromodichloromethane	0.0E+00	0.0E+00	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000		NA	NA			
Bromoform	0.0E+00	0.0E+00	No	2E-01		Liver effects	Gavage/HEAST	100		NA	NA			
Carbon Tetrachloride	7.5E-09	1.7E-08	No	7E-03		Liver lesions	HEAST	100		1.1E-06	2.4E-06			
Chloroform	0.0E+00	0.0E+00	No	1E-02		Liver lesions	HEAST	1000		NA	NA			
Dibromochloromethane	0.0E+00	0.0E+00	No	2E-01		Liver lesions	Gavage/HEAST	100		NA	NA			
Ethylbenzene	0.0E+00	0.0E+00	No	1E+00		Hepatotoxicity, neurotoxicity	Oral/HEAST	100		NA	NA			
Styrene	0.0E+00	0.0E+00	No	2E+00		RBC and liver effects	Gavage/HEAST	100		NA	NA			
Tetrachloroethene	5.7E-09	2.4E-09	No	1E-01		Hepatotoxicity	Gavage/HEAST	100		5.7E-08	2.4E-08			
Toluene	6.9E-09	7.3E-09	No	2E+00		Changes in liver and kidney weight	HEAST	100		3.4E-09	3.7E-09			
Trichloroethene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA			
Xylene	0.0E+00	0.0E+00	No	4E+00		None observed	HEAST	100		NA	NA			
SEMIVOLATILES														
1,4-Dichlorobenzene	6.1E-08	1.1E-07	No	NA			NA/HEAST			NA	NA			
2-Methylnaphthalene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
2,4-Dinitrotoluene	6.1E-08	1.1E-07	No	NA			NA/HEAST			NA	NA			
2,4,6-Trichlorophenol	6.1E-08	1.1E-07	No	NA			NA/HEAST			NA	NA			
2,6-Dinitrotoluene	6.1E-08	1.1E-07	No	NA			NA/HEAST			NA	NA			
3,3-Dichlorobenzidine	1.2E-07	2.1E-07	No	NA			NA/HEAST			NA	NA			
Anthracene	6.1E-08	1.1E-07	No	3E+00		no observed effects	Gavage/HEAST	300		2.0E-08	3.5E-08			
Benzoic Acid	2.1E-07	5.4E-07	No	4E+00		Irritation, malaise	Diet/HEAST	1		5.2E-08	1.3E-07			
Benzo(a)anthracene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
Benzo(a)pyrene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
Benzo(b)fluoranthene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
Benzo(k)fluoranthene	7.7E-08	1.1E-07	No	4E-02			NA/HEAST			1.9E-06	2.6E-06			
Bis(2-chloroethyl)ether	6.1E-08	1.1E-07	No	NA			NA/HEAST			NA	NA			
Bis(2ethylhexyl)phthalate	1.6E-08	1.1E-07	No	2E-02		Increased relative liver weight	Diet/HEAST	1000		8.0E-07	5.3E-06			
Butylbenzylphthalate	6.1E-08	4.9E-07	No	2E+00		Effects on body weight gain, testes liver	Diet/HEAST	100		4.0E-06	2.4E-07			
Chrysene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
Dibenzo(a,h)anthracene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
Di-n-butylphthalate	6.8E-08	6.4E-07	No	1E+00		Mortality	Diet/HEAST	100		6.8E-08	6.4E-07			
Fluoranthene	6.1E-08	1.1E-07	No	4E-01		Hematological changes	Gavage/HEAST	300		1.5E-07	2.6E-07			
Fluorene	6.1E-08	1.1E-07	No	4E-01		Hematological changes	Gavage/HEAST	300		1.5E-07	2.6E-07			
Hexachlorobenzene	6.1E-08	1.1E-07	No	8E-04		Liver and hematologic effects	Diet/HEAST	100		7.6E-05	1.3E-04			
Hexachlorobutadiene	6.1E-08	1.1E-07	No	2E-03		Kidney toxicity	Diet/HEAST	100		3.1E-05	5.3E-05			
Hexachloroethane	6.1E-08	1.1E-07	No	1E-02		Kidney degeneration	Diet/HEAST	100		6.1E-06	1.1E-05			
Indeno(123cd)pyrene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
Isophrone	6.1E-08	1.1E-07	No	2E+00		Kidney lesions	Oral/HEAST	100		3.1E-08	5.3E-08			
Naphthalene	6.1E-08	1.1E-07	No	4E-02		Decreased body weight gain	Gavage/HEAST	100		1.5E-06	2.6E-06			
N-nitroso-di-n-propylamine	6.1E-08	1.1E-07	No	NA			NA/HEAST			NA	NA			
N-nitrosodiphenylamine	6.1E-08	1.1E-07	No	NA			NA/HEAST			NA	NA			
Pentachlorophenol	3.1E-07	5.4E-07	No	3E-02		Fetotoxicity	Gavage/HEAST	100		1.0E-05	1.8E-05			
Phenanthrene	6.1E-08	1.1E-07	No	4E-02			NA/HEAST			1.5E-06	2.6E-06			
Pyrene	6.1E-08	1.1E-07	No	3E-01		Renal effects	Gavage/HEAST	300		2.0E-07	3.5E-07			
PESTICIDES														
4,4'-DDE	1.9E-09	8.8E-10	No	NA			NA/HEAST			NA	NA			
4,4'-DDT	2.4E-09	4.2E-09	No	5E-04		Liver lesions	Diet/HEAST	100		4.8E-06	8.3E-06			

TABLE E.3-8
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)	
												2.0E-01	MEAN
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL												3.6E-01	MAXIMUM
INORGANICS													
Aluminum	3.7E-02	7.0E-02		NA			HEAST			NA	NA		
Antimony	2.8E-05	4.7E-05		4E-04		Reduced life span, altered blood chemistry	Water/HEAST	1000		7.0E-02	1.2E-01		
Arsenic	7.2E-05	1.5E-04		1E-03		Keratosis and hyperpigmentation	Diet/HEAST	1		7.2E-02	1.5E-01		
Barium	4.4E-05	7.1E-05		5E-02		Increased blood pressure	Water/HEAST	100		8.8E-04	1.4E-03		
Beryllium	9.8E-07	2.8E-06		5E-03		None observed	Water/HEAST	100		1.9E-04	5.3E-04		
Cadmium	1.4E-06	0.0E+00		NA			NA/HEAST			NA	NA		
Calcium	5.8E-03	1.2E-02		NA			NA/HEAST			NA	NA		
Chromium	5.5E-06	7.7E-05		2E-02		Not defined	Water/HEAST	100		2.8E-03	3.9E-03		
Cobalt	9.6E-05	2.0E-04		NA			NA/HEAST			NA	NA		
Copper	1.2E-04	1.9E-04		4E-02		Local GI irritation	NA/HEAST			2.9E-03	4.8E-03		
Cyanide	1.3E-06	0.0E+00		2E-02		Weight loss, thyroid eff., myelin degeneration	Diet/HEAST	500		6.6E-05	0.0E+00		
Iron	1.4E-01	2.4E-01		NA						NA	NA		
Lead	9.7E-06	2.0E-05		NA			NA/HEAST			NA	NA		
Magnesium	1.2E-02	2.4E-02		NA			NA/HEAST			NA	NA		
Manganese	2.0E-03	3.4E-03		1E-01		No effect	Occupational/HEAST	1		2.0E-02	3.4E-02		
Mercury	2.6E-07	0.0E+00		3E-04		Kidney effects	Oral/HEAST	1000		8.6E-04	0.0E+00		
Nickel	1.1E-04	2.0E-04		2E-02		Decreased body and organ weight	Diet/HEAST	300		5.7E-03	1.0E-02		
Potassium	4.0E-04	9.4E-04		NA			NA/HEAST			NA	NA		
Selenium	1.1E-06	1.9E-06		NA			NA/HEAST			NA	NA		
Silver	3.2E-06	8.0E-06		3E-03		Argyria	HEAST	2		1.1E-03	2.7E-03		
Sodium	4.8E-05	8.9E-05		NA			NA/HEAST			NA	NA		
Thallium	1.9E-06	0.0E+00		7E-04		Inc. SGOT and serum LDH levels, alopecia	HEAST	300		2.7E-03	0.0E+00		
Vanadium	8.9E-05	1.9E-04		7E-03		None observed	Water/HEAST	100		1.3E-02	2.7E-02		
Zinc	2.6E-04	4.4E-04		2E-01		Anemia	Therapeutic/HEAST	10		1.3E-03	2.2E-03		
VOLATILES													
1,1-Dichloroethane	0.0E+00	0.0E+00	No	1E+00		None	HEAST	100		NA	NA		
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	9E-01		Hepatotoxicity	HEAST	100		NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	4E-02		Clinical chemistry alterations	Water/HEAST	100		NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA		
1,2-Dichloroethene	0.0E+00	0.0E+00	No	1E-01		Decreased hematocrit and hemoglobin	Gavage/HEAST	300		NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	3E-03		Increased organ weight	Diet/HEAST	1000		NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	3E-03		Increased organ weight	Diet/HEAST	1000		NA	NA		
Benzene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	No	2E-02		Renal cytomegaly	Gavage/HEAST	1000		NA	NA		
Bromoform	0.0E+00	0.0E+00	No	2E-01		Liver effects	Gavage/HEAST	100		NA	NA		
Carbon Tetrachloride	1.4E-06	3.3E-06	No	7E-03		Liver lesions	HEAST	100		2.1E-06	4.7E-06		
Chloroform	0.0E+00	0.0E+00	No	1E-02		Liver lesions	HEAST	1000		NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	No	2E-01		Liver lesions	Gavage/HEAST	100		NA	NA		
Ethylbenzene	0.0E+00	0.0E+00	No	1E+00		Hepatotoxicity, neurotoxicity	Oral/HEAST	100		NA	NA		
Styrene	0.0E+00	0.0E+00	No	2E+00		RBC and liver effects	Gavage/HEAST	100		NA	NA		
Tetrachloroethene	1.1E-08	4.7E-09	No	1E-01		Hepatotoxicity	Gavage/HEAST	100		1.1E-07	4.7E-08		
Toluene	1.3E-08	1.4E-08	No	2E+00		Changes in liver and kidney weight	HEAST	100		6.6E-09	7.0E-09		
Trichloroethene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA		
Xylene	0.0E+00	0.0E+00	No	4E+00		None observed	HEAST	100		NA	NA		
SEMIVOLATILES													
1,4-Dichlorobenzene	1.2E-06	2.0E-06	No	NA			NA/HEAST			NA	NA		
2-Methylnaphthalene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
2,4-Dinitrotoluene	1.2E-06	2.0E-06	No	NA			NA/HEAST			NA	NA		
2,4,6-Trichlorophenol	1.2E-06	2.0E-06	No	NA			NA/HEAST			NA	NA		
2,6-Dinitrotoluene	1.2E-06	2.0E-06	No	NA			NA/HEAST			NA	NA		
3,3-Dichlorobenzidine	2.3E-06	4.1E-06	No	NA			NA/HEAST			NA	NA		
Anthracene	1.2E-06	2.0E-06	No	3E+00		no observed effects	Gavage/HEAST	300		3.9E-07	6.7E-07		
Benzoic Acid	4.0E-06	1.0E-05	No	4E+00		Irritation, malaise	Diet/HEAST	1		1.0E-06	2.6E-06		
Benzo(a)anthracene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
Benzo(a)pyrene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
Benzo(b)fluoranthene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
Benzo(k)fluoranthene	1.5E-06	2.0E-06	No	4E-02			NA/HEAST			3.7E-05	5.0E-05		
Bis(2-chloroethyl)ether	1.2E-06	2.0E-06	No	NA			NA/HEAST			NA	NA		
Bis(2ethylhexyl)phthalate	3.1E-07	2.0E-06	No	2E-02		Increased relative liver weight	Diet/HEAST	1000		1.5E-05	1.0E-04		
Butylbenzylphthalate	1.6E-06	9.4E-06	No	2E+00		Effects on body weight gain, testes liver	Diet/HEAST	100		7.8E-07	4.7E-06		
Chrysene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
Dibenzo(a,h)anthracene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
Di-n-butylphthalate	1.3E-06	1.2E-05	No	1E+00		Mortality	Diet/HEAST	100		1.3E-06	1.2E-05		
Fluoranthene	1.2E-06	2.0E-06	No	4E-01		Hematological changes	Gavage/HEAST	300		2.9E-06	5.0E-06		
Fluorene	1.2E-06	2.0E-06	No	4E-01		Hematological changes	Gavage/HEAST	300		2.9E-06	5.0E-06		
Hexachlorobenzene	1.2E-06	2.0E-06	No	8E-04		Liver and hematologic effects	Diet/HEAST	100		1.5E-03	2.5E-03		
Hexachlorobutadiene	1.2E-06	2.0E-06	No	2E-03		Kidney toxicity	Diet/HEAST	100		5.9E-04	1.0E-03		
Hexachloroethane	1.2E-06	2.0E-06	No	1E-02		Kidney degeneration	Diet/HEAST	100		1.2E-04	2.0E-04		
Indeno(123cd)pyrene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
Isophrone	1.2E-06	2.0E-06	No	2E+00		Kidney lesions	Oral/HEAST	100		5.9E-07	1.0E-06		
Naphthalene	1.2E-06	2.0E-06	No	4E-02		Decreased body weight gain	Gavage/HEAST	100		2.9E-06	5.0E-06		
N-nitroso-di-n-propylamine	1.2E-06	2.0E-06	No	NA			NA/HEAST			NA	NA		
N-nitrosodiphenylamine	1.2E-06	2.0E-06	No	NA			NA/HEAST			NA	NA		
Pentachlorophenol	5.9E-06	1.0E-05	No	3E-02		Fetotoxicity	Gavage/HEAST	100		2.0E-04	3.4E-04		
Phenanthrene	1.2E-06	2.0E-06	No	4E-02			NA/HEAST			2.9E-05	5.0E-05		
Pyrene	1.2E-06	2.0E-06	No	3E-01		Renal effects	Gavage/HEAST	300		3.9E-06	6.7E-06		
PESTICIDES													
4,4'-DDE	1.1E-06	5.1E-06	No	NA			NA/HEAST			NA	NA		
4,4'-DDT	1.4E-06	2.4E-06	No	5E-04		Liver lesions	Diet/HEAST	100		2.8E-05	4.8E-05		

TABLE E.3-9
SCENARIO 3
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI MEAN (mg/kg/day)	CDI MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZARD QUOTIENT MEAN	HAZARD QUOTIENT MAX.	PATHWAY HAZARD INDEX (HI)
												3.2E-03 MEAN
EXPOSURE PATHWAY: INHALATION OF CHEMICALS ABSORBED TO DUST												5.2E-03 MAXIMUI
INORGANICS												
Aluminum	5.8E-06	1.1E-05	No	NA			NA/HEAST			NA	NA	
Antimony	4.3E-09	7.3E-09	No	4E-04						1.1E-05	1.8E-05	
Arsenic	1.1E-08	2.3E-08	No	1E-03						1.1E-05	2.3E-05	
Barium	6.8E-09	1.1E-08	No	1E-03		Fetotoxicity	HEAST	100	1	6.8E-06	1.1E-05	
Beryllium	1.5E-10	4.1E-10	No	5E-03						3.0E-08	8.1E-08	
Cadmium	2.2E-10	0.0E+00	No	1E-03						2.2E-07	0.0E+00	
Calcium	9.0E-07	1.9E-06	No	NA			NA/HEAST			NA	NA	
Chromium	8.5E-09	1.2E-08	No	7E-02		Nasal mucosa atrophy	HEAST	30	1	1.2E-07	1.7E-07	
Cobalt	1.5E-08	3.1E-08	No	NA			NA/HEAST			NA	NA	
Copper	1.8E-08	3.0E-08	No	NA			NA/HEAST			NA	NA	
Cyanide	2.0E-10	0.0E+00	No	2.0E-02		Myelin degeneration				1.0E-08	0.0E+00	
Iron	2.1E-05	3.7E-05	No	NA			NA/HEAST			NA	NA	
Lead	5.0E-09	1.0E-08	No	NA			NA/HEAST			NA	NA	
Magnesium	1.8E-06	3.6E-06	No	NA			NA/HEAST			NA	NA	
Manganese	3.1E-07	5.2E-07	No	1E-04		Inc. prevalance of respiratory symptoms, psycho-motor disturbances	Occupational/HEAST	900		3.1E-03	5.2E-03	
Mercury	4.0E-11	0.0E+00	No	9E-06		Neurotoxicity	Occupational/HEAST	30	1	4.4E-06	0.0E+00	
Nickel	1.8E-08	3.2E-08	No	NA			NA/HEAST			NA	NA	
Potassium	6.2E-08	1.5E-07	No	NA			NA/HEAST			NA	NA	
Selenium	1.6E-10	3.0E-10	No	NA			NA/HEAST			NA	NA	
Silver	5.0E-10	1.2E-09	No	NA			NA/HEAST			NA	NA	
Sodium	7.4E-09	1.4E-08	No	NA			NA/HEAST			NA	NA	
Thallium	2.9E-10	0.0E+00	No	NA			NA/HEAST			NA	NA	
Vanadium	1.4E-08	2.9E-08	No	7E-03						2.0E-06	4.2E-06	
Zinc	4.0E-08	6.8E-08	No	2E-01						2.0E-07	3.4E-07	
VOLATILES												
1,1-Dichloroethane	0.0E+00	0.0E+00	No	1E+00		Kidney damage	HEAST	100		NA	NA	
1,1,1-Trichloroethane	0.0E+00	0.0E+00	No	3E+00		Hepatotoxicity	HEAST	100	1	NA	NA	
1,1,2-Trichloroethane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
1,2-Dichloroethene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
1,2-Dichloropropane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	NA	NA	
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	No	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	30	1	NA	NA	
Benzene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Bromodichloromethane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Bromoform	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Carbon Tetrachloride	2.2E-12	5.1E-12	No	NA			NA/HEAST			NA	NA	
Chloroform	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Dibromochloromethane	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Ethylbenzene	0.0E+00	0.0E+00	No	3E-01		Developmental toxicity	HEAST	300	1	NA	NA	
Styrene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Tetrachloroethene	1.7E-12	7.3E-13	No	NA			NA/HEAST			NA	NA	
Toluene	2.0E-12	2.2E-12	No	6E-01		CNS effects, eyes and nose irritation	HEAST	100	1	3.4E-12	3.6E-12	
Trichloroethene	0.0E+00	0.0E+00	No	NA			NA/HEAST			NA	NA	
Xylene	0.0E+00	0.0E+00	No	9E-02		CNS effects, eyes and nose irritation	HEAST	100	1	NA	NA	
SEMIVOLATILES												
1,4-Dichlorobenzene	1.8E-10	3.1E-10	No	2E-01		Liver and kidney effects	HEAST	100	1	9.1E-10	1.6E-09	
2-Methylnaphthalene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
2,4-Dinitrotoluene	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
2,4,6-Trichlorophenol	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
2,6-Dinitrotoluene	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
3,3-Dichlorobenzidine	3.6E-10	6.3E-10	No	NA			NA/HEAST			NA	NA	
Anthracene	1.8E-10	3.1E-10	No	3E+00			HEAST			6.0E-11	1.0E-10	
Benzoic Acid	6.2E-10	1.8E-09	No	NA			NA/HEAST			NA	NA	
Benzo(a)anthracene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
Benzo(a)pyrene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
Benzo(b)fluoranthene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
Benzo(k)fluoranthene	2.3E-10	3.1E-10	No	4E-02			NA/HEAST			5.7E-09	7.8E-09	
Bis(2-chloroethyl)ether	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
Bis(2ethylhexyl)phthalate	4.6E-11	3.1E-10	No	2E-02			HEAST			2.4E-09	1.6E-08	
Butylbenzylphthalate	2.4E-10	1.5E-09	No	2E+00						1.2E-10	7.3E-10	
Chrysene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
Dibenzo(a,h)anthracene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
Di-n-butylphthalate	2.0E-10	1.9E-09	No	1E+00						2.0E-10	1.9E-09	
Fluoranthene	1.8E-10	3.1E-10	No	4E-01			HEAST			4.5E-10	7.8E-10	
Fluorene	1.8E-10	3.1E-10	No	4E-01			HEAST			4.5E-10	7.8E-10	
Hexachlorobenzene	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
Hexachlorobutadiene	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
Hexachloroethane	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
Indeno(123cd)pyrene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
Isophrone	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
Naphthalene	1.8E-10	3.1E-10	No	4E-02			HEAST			4.5E-09	7.8E-09	
N-nitroso-di-n-propylamine	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
N-nitrosodiphenylamine	1.8E-10	3.1E-10	No	NA			NA/HEAST			NA	NA	
Pentachlorophenol	9.1E-10	1.8E-09	No	NA			NA/HEAST			NA	NA	
Phenanthrene	1.8E-10	3.1E-10	No	4E-02			NA/HEAST			4.5E-09	7.8E-09	
Pyrene	1.8E-10	3.1E-10	No	3E-01			HEAST			6.0E-10	1.0E-09	
PESTICIDES												
4,4'-DDE	5.5E-12	2.8E-12	No	NA			NA/HEAST			NA	NA	
4,4'-DDT	7.2E-12	1.2E-11	No	5E-04			HEAST			1.4E-08	2.5E-08	

TABLE E.4-1
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN WATER ME/ (mg/liter)	CONC. IN WATER MA) (mg/liter)	IR CHILD (liters/day)	IR ADULT (liters/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NONCANCER (days)	A.T. ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																				
Aluminum	2.67E+00	1.47E+00	9.50E+00	5.21E+00	2.29E-01	6.28E-01	8.14E-01	2.23E+00	53.5	190.0	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Arsenic	3.65E-03	2.00E-03	1.32E-02	7.26E-03	3.12E-04	8.58E-04	1.14E-03	3.11E-03	0.073	0.265	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Barium	8.46E-03	4.63E-03	2.44E-02	1.34E-02	7.25E-04	1.99E-03	2.10E-03	5.74E-03	0.17	0.49	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Beryllium	1.70E-04	9.32E-05	5.10E-04	2.79E-04	1.46E-05	4.00E-05	4.37E-05	1.20E-04	0.0034	0.0102	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cadmium	8.72E-06	4.78E-06	2.50E-04	1.37E-04	7.47E-06	2.05E-05	2.14E-05	5.87E-05	0.0017	0.0050	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Calcium	2.72E+00	1.49E+00	4.48E+00	2.46E+00	2.33E-01	6.39E-01	3.84E-01	1.05E+00	54.4	89.7	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chromium	4.40E-03	2.41E-03	1.92E-02	1.05E-02	3.77E-04	1.03E-03	1.65E-03	4.51E-03	0.088	0.364	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cobalt	6.29E-03	3.45E-03	1.47E-02	8.08E-03	5.39E-04	1.48E-03	1.26E-03	3.46E-03	0.126	0.295	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Copper	4.99E-03	2.73E-03	1.52E-02	8.33E-03	4.28E-04	1.17E-03	1.30E-03	3.57E-03	0.100	0.304	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Iron	1.26E+01	6.92E+00	3.94E+01	2.16E+01	1.08E+00	2.97E+00	3.37E+00	9.24E+00	252.8	787.1	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Lead	4.67E-03	2.56E-03	3.15E-02	1.73E-02	4.00E-04	1.10E-03	2.70E-03	7.40E-03	0.093	0.630	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Magnesium	2.42E+00	1.33E+00	5.40E+00	2.96E+00	2.08E-01	5.69E-01	4.63E-01	1.27E+00	48.4	108.0	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Manganese	2.69E-01	1.48E-01	5.10E-01	2.79E-01	2.31E-02	6.33E-02	4.37E-02	1.20E-01	5.4	10.2	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Nickel	1.09E-02	5.95E-03	2.65E-02	1.45E-02	9.31E-04	2.55E-03	2.27E-03	6.22E-03	0.22	0.53	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Potassium	2.27E-01	1.24E-01	4.63E-01	2.54E-01	1.94E-02	5.33E-02	3.97E-02	1.09E-01	4.5	9.3	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Selenium	2.45E-04	1.34E-04	1.00E-03	5.48E-04	2.10E-05	5.75E-05	6.57E-05	2.35E-04	0.0049	0.0200	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Silver	4.47E-04	2.45E-04	1.22E-03	6.71E-04	3.83E-05	1.05E-04	1.05E-04	2.88E-04	0.0089	0.0245	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Sodium	5.67E-01	3.10E-01	1.98E+00	1.08E+00	4.86E-02	1.33E-01	1.70E-01	4.65E-01	11.3	39.6	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Thallium	2.00E-04	1.10E-04	2.00E-04	1.10E-04	1.71E-05	4.70E-05	1.71E-05	4.70E-05	0.0040	0.0040	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Vanadium	1.44E-03	7.89E-04	5.40E-03	2.96E-03	1.23E-04	3.38E-04	4.63E-04	1.27E-03	0.029	0.108	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Zinc	3.14E-02	1.72E-02	8.15E-02	4.47E-02	2.69E-03	7.38E-03	6.99E-03	1.91E-02	0.63	1.63	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
VOLATILES																				
1,1-Dichloroethane	1.69E-04	9.23E-05	1.15E-03	6.30E-04	1.44E-05	3.96E-05	9.86E-05	2.70E-04	0.0034	0.0230	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	2.36E-04	1.29E-04	9.50E-03	5.21E-03	2.02E-05	5.54E-05	8.14E-04	2.23E-03	0.0047	0.1900	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethene	2.86E-04	1.57E-04	3.15E-02	1.73E-02	2.45E-05	6.71E-05	2.70E-03	7.40E-03	0.0057	0.6300	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropane (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropane (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chloroform	1.88E-04	1.03E-04	3.50E-04	1.92E-04	1.62E-05	4.43E-05	3.00E-05	8.22E-05	0.0038	0.0070	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	1.73E-04	9.49E-05	2.35E-03	1.29E-03	1.48E-05	4.07E-05	2.01E-04	5.52E-04	0.0035	0.0470	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	1.40E-04	7.68E-05	3.50E-04	1.92E-04	1.20E-05	3.29E-05	3.00E-05	8.22E-05	0.0028	0.0070	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Toluene	1.69E-04	9.27E-05	1.90E-03	1.04E-03	1.45E-05	3.97E-05	1.63E-04	4.46E-04	0.0034	0.0380	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	1.78E-04	9.76E-05	1.90E-03	1.04E-03	1.53E-05	4.18E-05	1.63E-04	4.46E-04	0.0036	0.0380	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Xylene	1.88E-04	1.03E-04	5.00E-03	2.74E-03	1.61E-05	4.42E-05	4.29E-04	1.17E-03	0.0038	0.1000	0.756	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE E.4-1 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN DRINKING WATER
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN WATER MEAN (mg/liter)	CONC. IN WATER MAX. (mg/liter)	IR CHILD (liters/day)	IR ADULT (liters/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NONCANCER (days)	A.T. ADULT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																				
1,4-Dichlorobenzene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	3.63E-04	1.99E-04	3.55E-03	1.95E-03	3.11E-05	8.51E-05	3.04E-04	8.34E-04	0.0073	0.0710	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	6.97E-04	3.82E-04	1.00E-03	5.48E-04	5.98E-05	1.64E-04	8.57E-05	2.35E-04	0.0139	0.0200	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Anthracene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzoic Acid	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Chrysene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Fluorene	3.45E-04	1.89E-04	2.26E-03	1.23E-03	2.95E-05	8.09E-05	1.93E-04	5.28E-04	0.0069	0.0450	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Hexachlorobenzene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Hexachlorobutadiene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Hexachloroethane	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Isophrone	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Naphthalene	3.28E-04	1.78E-04	1.35E-03	7.40E-04	2.79E-05	7.65E-05	1.18E-04	3.17E-04	0.0065	0.0270	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	3.49E-04	1.91E-04	5.00E-04	2.74E-04	2.99E-05	8.19E-05	4.29E-05	1.17E-04	0.0070	0.0100	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Pentachlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	3.42E-04	1.87E-04	2.10E-03	1.15E-03	2.93E-05	8.03E-05	1.80E-04	4.93E-04	0.0068	0.0420	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
Pyrene	3.17E-04	1.74E-04	1.05E-03	5.75E-04	2.71E-05	7.44E-05	9.00E-05	2.47E-04	0.0063	0.0210	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																				
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	NA	NA	0.756	2.0	350	6	30	14.5	70	2190	10950	25550

TABLE E.4-2
SCENARIO 4
INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN AIR MEAN (mg/m3)	CONC. IN AIR MAX. (mg/m3)	INHALATN RATE (m3/hour)	ET (hrs/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NONCANCER (days)	A.T. ADULT NONCANCER (days)	AT CANCER (days)
INORGANICS																				
Aluminum	1.33E+00	2.76E-01	4.71E+00	9.76E-01	1.14E-01	1.18E-01	4.04E-01	4.18E-01	1.60E+02	5.70E+02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Antimony	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Arsenic	1.61E-03	3.74E-04	6.57E-03	1.36E-03	1.55E-04	1.60E-04	5.63E-04	5.83E-04	2.19E-01	7.95E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Barium	4.19E-03	8.69E-04	1.21E-02	2.51E-03	3.59E-04	3.72E-04	1.04E-03	1.08E-03	5.07E-01	1.47E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Beryllium	8.44E-06	1.75E-06	2.53E-04	5.24E-05	7.23E-06	7.49E-06	2.17E-05	2.25E-05	1.02E-02	3.06E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Cadmium	4.32E-06	8.96E-06	1.24E-04	2.57E-05	3.71E-06	3.84E-06	1.06E-05	1.10E-05	5.23E-03	1.50E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Calcium	1.35E+00	2.79E-01	2.22E+00	4.61E-01	1.16E-01	1.20E-01	1.91E-01	1.97E-01	1.63E+02	2.69E+02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Chromium	2.18E-03	4.52E-04	9.62E-03	1.97E-03	1.87E-04	1.94E-04	8.16E-04	8.45E-04	2.64E-01	1.15E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Cobalt	3.12E-03	6.46E-04	7.32E-03	1.52E-03	2.68E-04	2.77E-04	6.27E-04	6.49E-04	3.78E-01	8.85E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Copper	2.47E-03	5.12E-04	7.54E-03	1.56E-03	2.12E-04	2.20E-04	6.46E-04	6.69E-04	2.99E-01	9.12E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Iron	6.26E+00	1.30E+00	1.95E+01	4.04E+00	5.37E-01	5.56E-01	1.67E+00	1.73E+00	7.58E+02	2.36E+03	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Lead	2.32E-03	4.80E-04	1.56E-02	3.24E-03	1.99E-04	2.06E-04	1.34E-03	1.39E-03	2.80E-01	1.89E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Magnesium	1.20E+00	2.49E-01	2.68E+00	5.55E-01	1.03E-01	1.07E-01	2.30E-01	2.38E-01	1.45E+02	3.24E+02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Manganese	1.34E-01	2.77E-02	2.53E-01	5.24E-02	1.15E-02	1.19E-02	2.17E-02	2.25E-02	1.62E+01	3.06E+01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Mercury	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Nickel	5.39E-03	1.12E-03	1.31E-02	2.72E-03	4.62E-04	4.78E-04	1.13E-03	1.17E-03	6.52E-01	1.59E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Potassium	1.12E-01	2.33E-02	2.30E-01	4.76E-02	9.64E-03	9.98E-03	1.97E-02	2.04E-02	1.36E+01	2.78E+01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Selenium	1.22E-04	2.52E-05	4.96E-04	1.03E-04	1.04E-05	1.08E-05	4.25E-05	4.40E-05	1.47E-02	6.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Silver	2.22E-04	4.59E-05	6.08E-04	1.26E-04	1.90E-05	1.97E-05	5.21E-05	5.39E-05	2.68E-02	7.35E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Sodium	2.81E-01	5.82E-02	9.82E-01	2.03E-01	2.41E-02	2.49E-02	8.42E-02	8.72E-02	3.40E+01	1.19E+02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Thallium	9.92E-06	2.05E-06	9.92E-05	2.05E-05	8.50E-06	8.81E-06	8.50E-06	8.81E-06	1.20E-02	1.20E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Vanadium	7.14E-04	1.48E-04	2.68E-03	5.55E-04	6.12E-05	6.34E-05	2.30E-04	2.38E-04	8.64E-02	3.24E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Zinc	1.56E-02	3.23E-03	4.04E-02	8.37E-03	1.34E-03	1.38E-03	3.46E-03	3.59E-03	1.89E+00	4.89E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
VOLATILES																				
1,1-Dichloroethane	8.36E-06	1.73E-06	5.70E-04	1.18E-04	7.16E-06	7.42E-06	4.89E-05	5.06E-05	1.01E-02	6.90E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	1.17E-04	2.42E-05	4.71E-03	9.76E-04	1.00E-05	1.04E-05	4.04E-04	4.18E-04	1.42E-02	5.70E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethene	1.42E-04	2.94E-05	1.56E-02	3.24E-03	1.22E-05	1.26E-05	1.34E-03	1.39E-03	1.72E-02	1.89E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropane (cis)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropane (trans)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bromoform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Chloroform	9.35E-05	1.94E-05	1.74E-04	3.60E-05	8.01E-06	8.30E-06	1.49E-05	1.54E-05	1.13E-02	2.10E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	8.59E-05	1.78E-05	1.17E-03	2.41E-04	7.36E-06	7.62E-06	9.99E-05	1.03E-04	1.04E-02	1.41E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Styrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	6.95E-05	1.44E-05	1.74E-04	3.60E-05	5.96E-06	6.17E-06	1.49E-05	1.54E-05	8.41E-03	2.10E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Toluene	8.39E-05	1.74E-05	9.42E-04	1.95E-04	7.19E-06	7.45E-06	8.08E-05	8.37E-05	1.01E-02	1.14E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	6.84E-05	1.83E-05	9.42E-04	1.95E-04	7.58E-06	7.85E-06	8.08E-05	8.37E-05	1.07E-02	1.14E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Xylene	9.34E-05	1.93E-05	2.48E-03	5.14E-04	8.01E-06	8.29E-06	2.13E-04	2.20E-04	1.13E-02	3.00E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550

TABLE E.4-2 (cont.)
SCENARIO 4
INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN AIR MEAN (mg/m3)	CONC. IN AIR MAX. (mg/m3)	INHALATN RATE (m3/hour)	ET (hours/day)	EF (days/yea	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	A.T. CHILD NONCANCER (days)	A.T. ADULT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																				
1,4-Dichlorobenzene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	1.80E-04	3.72E-05	1.76E-03	3.85E-04	1.54E-05	1.60E-05	1.51E-04	1.56E-04	2.18E-02	2.13E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	3.46E-04	7.17E-05	4.96E-04	1.03E-04	2.96E-05	3.07E-05	4.25E-05	4.40E-05	4.18E-02	6.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Anthracene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzoic Acid	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Chrysene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Fluorene	1.71E-04	3.54E-05	1.12E-03	2.31E-04	1.47E-05	1.52E-05	9.56E-05	9.91E-05	2.07E-02	1.35E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Hexachlorobenzene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Hexachlorobutadiene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Hexachloroethane	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Isophrone	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Naphthalene	1.62E-04	3.35E-05	6.70E-04	1.39E-04	1.38E-05	1.43E-05	5.74E-05	5.94E-05	1.95E-02	8.10E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	1.73E-04	3.58E-05	2.48E-04	5.14E-05	1.48E-05	1.54E-05	2.13E-05	2.20E-05	2.09E-02	3.00E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Pentachlorophenol	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	1.70E-04	3.51E-05	1.04E-03	2.16E-04	1.45E-05	1.51E-05	8.93E-05	9.25E-05	2.05E-02	1.26E-01	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
Pyrene	1.57E-04	3.25E-05	5.21E-04	1.08E-04	1.35E-05	1.39E-05	4.48E-05	4.62E-05	1.90E-02	6.30E-02	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																				
4,4'-DDE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.625	0.2	350	6	30	14.5	70	2190	10950	25550

TABLE E.4-3
SCENARIO 4
COMPOUND CONCENTRATIONS EMITTED FROM TAP WATER
TANK FARM FIVE

COMPOUND NAME	mean Concentration in tap water (mg/L)	maximum Concentration in tap water (mg/L)	Flow Rate Of Shower Water (l/hr)	Fraction Of Contaminant Volatilized	One Half The Duration Of Shower (hr)	Bathroom Volume (m3)	Conc. in Bathroom mean (mg/m3)	Conc. in Bathroom maximum (mg/m3)
INORGANICS								
Aluminum	53.49	190.00	400.0	0.9	0.1	12.0	1.6E+02	5.7E+02
Antimony	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Arsenic	0.073	0.265	400.0	0.9	0.1	12.0	2.2E-01	7.9E-01
Barium	0.17	0.49	400.0	0.9	0.1	12.0	5.1E-01	1.5E+00
Beryllium	0.0034	0.0102	400.0	0.9	0.1	12.0	1.0E-02	3.1E-02
Cadmium	0.0017	0.0050	400.0	0.9	0.1	12.0	5.2E-03	1.5E-02
Calcium	54.40	89.70	400.0	0.9	0.1	12.0	1.6E+02	2.7E+02
Chromium	0.088	0.384	400.0	0.9	0.1	12.0	2.6E-01	1.2E+00
Cobalt	0.13	0.30	400.0	0.9	0.1	12.0	3.8E-01	8.8E-01
Copper	0.10	0.30	400.0	0.9	0.1	12.0	3.0E-01	9.1E-01
Cyanide	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Iron	252.56	787.10	400.0	0.9	0.1	12.0	7.6E+02	2.4E+03
Lead	0.093	0.630	400.0	0.9	0.1	12.0	2.8E-01	1.9E+00
Magnesium	48.44	106.00	400.0	0.9	0.1	12.0	1.5E+02	3.2E+02
Manganese	5.39	10.20	400.0	0.9	0.1	12.0	1.6E+01	3.1E+01
Mercury	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Nickel	0.22	0.53	400.0	0.9	0.1	12.0	6.5E-01	1.6E+00
Potassium	4.54	9.27	400.0	0.9	0.1	12.0	1.4E+01	2.8E+01
Selenium	0.0049	0.0200	400.0	0.9	0.1	12.0	1.5E-02	6.0E-02
Silver	0.0089	0.0245	400.0	0.9	0.1	12.0	2.7E-02	7.3E-02
Sodium	11.33	39.60	400.0	0.9	0.1	12.0	3.4E+01	1.2E+02
Thallium	0.0040	0.0040	400.0	0.9	0.1	12.0	1.2E-02	1.2E-02
Vanadium	0.029	0.108	400.0	0.9	0.1	12.0	8.6E-02	3.2E-01
Zinc	0.63	1.63	400.0	0.9	0.1	12.0	1.9E+00	4.9E+00
VOLATILES								
1,1-Dichloroethane	0.0034	0.0230	400.0	0.9	0.1	12.0	1.0E-02	6.9E-02
1,1,1-Trichloroethane	0.0047	0.1900	400.0	0.9	0.1	12.0	1.4E-02	5.7E-01
1,1,2-Trichloroethane	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
1,1,2,2-Tetrachloroethane	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
1,2-Dichloroethene	0.0057	0.6300	400.0	0.9	0.1	12.0	1.7E-02	1.9E+00
1,2-Dichloropropane	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
1,3-Dichloropropane (cis)	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
1,3-Dichloropropane (trans)	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Benzene	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Bromodichloromethane	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Bromoform	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Carbon Tetrachloride	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Chloroform	0.0038	0.0070	400.0	0.9	0.1	12.0	1.1E-02	2.1E-02
Dibromochloromethane	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Ethylbenzene	0.0035	0.0470	400.0	0.9	0.1	12.0	1.0E-02	1.4E-01
Styrene	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Tetrachloroethene	0.0028	0.0070	400.0	0.9	0.1	12.0	8.4E-03	2.1E-02
Toluene	0.0034	0.0380	400.0	0.9	0.1	12.0	1.0E-02	1.1E-01
Trichloroethene	0.0036	0.0380	400.0	0.9	0.1	12.0	1.1E-02	1.1E-01
Xylene	0.0038	0.1000	400.0	0.9	0.1	12.0	1.1E-02	3.0E-01
SEMIVOLATILES								
1,4-Dichlorobenzene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
2-Methylnaphthalene	0.0073	0.0710	400.0	0.9	0.1	12.0	2.2E-02	2.1E-01
2,4-Dinitrotoluene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
2,4,6-Trichlorophenol	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
2,6-Dinitrotoluene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
3,3-Dichlorobenzidine	0.0139	0.0200	400.0	0.9	0.1	12.0	4.2E-02	6.0E-02
Anthracene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Benzoic Acid	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Benzo(a)anthracene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Benzo(a)pyrene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Benzo(b)fluoranthene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Benzo(k)fluoranthene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Bis(2-chloroethyl)ether	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Bis(2ethylhexyl)phthalate	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Butylbenzylphthalate	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Chrysene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Dibenzo(a,h)anthracene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Di-n-butylphthalate	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Fluoranthene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Fluorene	0.0069	0.0450	400.0	0.9	0.1	12.0	2.1E-02	1.3E-01
Hexachlorobenzene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Hexachlorobutadiene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Hexachloroethane	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Indeno(123cd)pyrene	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Isophrone	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Naphthalene	0.0065	0.0270	400.0	0.9	0.1	12.0	2.0E-02	8.1E-02
N-nitroso-di-n-propylamine	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
N-nitrosodiphenylamine	0.0070	0.0100	400.0	0.9	0.1	12.0	2.1E-02	3.0E-02
Pentachlorophenol	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
Phenanthrene	0.0066	0.0420	400.0	0.9	0.1	12.0	2.1E-02	1.3E-01
Pyrene	0.0063	0.0210	400.0	0.9	0.1	12.0	1.9E-02	6.3E-02
PESTICIDES								
4,4'-DDE	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00
4,4'-DDT	NA	NA	400.0	0.9	0.1	12.0	0.0E+00	0.0E+00

TABLE E.4-4
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CF (kg/mg)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	RAF (yrs)	BW CHILD (kg)	BW ADULT (kg)	AVG. TIME CHILD NON-CANCER (days)	AVG. TIME ADULT NON-CANCER (days)	AVG. TIME CANCER (days)
INORGANICS																						
Aluminum	7.0E-02	7.2E-03	1.3E-01	1.3E-02	6.0E-03	3.1E-03	1.1E-02	5.6E-03	5263.74	9550.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Antimony	4.2E-06	4.4E-06	7.1E-06	7.4E-06	3.6E-06	1.9E-06	6.1E-06	3.2E-06	3.18	5.40	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	2.9E-05	3.0E-06	1.3E-04	1.4E-05	2.5E-06	1.3E-06	1.1E-05	5.9E-06	2.19	10.10	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Barium	1.7E-04	1.8E-05	2.6E-04	2.7E-05	1.5E-05	7.7E-06	2.3E-05	1.2E-05	13.19	19.90	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	2.1E-06	2.2E-07	3.8E-06	3.7E-07	1.8E-07	9.4E-08	3.1E-07	1.6E-07	0.16	0.27	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Calcium	7.7E-03	8.0E-04	1.1E-02	1.2E-03	6.6E-04	3.4E-04	9.7E-04	5.0E-04	583.28	854.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	7.9E-05	8.2E-06	1.9E-04	1.9E-05	6.8E-06	3.5E-06	1.6E-05	8.2E-06	5.96	14.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	7.7E-05	8.0E-06	2.0E-04	2.1E-05	6.6E-06	3.4E-06	1.7E-05	8.9E-06	5.84	15.10	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	9.2E-05	9.5E-06	3.2E-04	3.3E-05	7.9E-06	4.1E-06	2.8E-05	1.4E-05	6.97	24.30	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Iron	1.4E-01	1.5E-02	3.4E-01	3.5E-02	1.2E-02	6.2E-03	2.9E-02	1.5E-02	10609.01	25500.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	1.3E-04	7.9E-06	3.7E-04	2.3E-05	1.1E-05	3.4E-06	3.2E-05	1.0E-05	19.34	56.60	200	100	1.0E-06	350	6	30	a	14.5	70	2190	10950	25550
Magnesium	1.9E-02	2.0E-03	3.9E-02	4.1E-03	1.7E-03	8.6E-04	3.4E-03	1.7E-03	1489.77	2960.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Manganese	3.0E-03	3.1E-04	5.9E-03	6.1E-04	2.6E-04	1.3E-04	5.0E-04	2.6E-04	226.97	445.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	1.0E-05	1.0E-06	7.1E-04	7.4E-05	8.6E-07	4.4E-07	6.1E-05	3.2E-05	0.78	54.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	8.3E-05	8.6E-06	2.8E-04	2.9E-05	7.1E-06	3.7E-06	2.4E-05	1.2E-05	6.30	21.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Potassium	2.9E-03	3.0E-04	3.4E-03	3.5E-04	2.5E-04	1.3E-04	2.9E-04	1.5E-04	221.11	255.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	3.8E-06	4.0E-07	5.2E-06	5.3E-07	3.3E-07	1.7E-07	4.4E-07	2.3E-07	0.29	0.39	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Silver	5.7E-06	5.9E-07	9.3E-06	9.6E-07	4.9E-07	2.5E-07	7.9E-07	4.1E-07	0.43	0.70	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Thallium	7.7E-06	8.0E-07	1.2E-05	1.2E-06	6.6E-07	3.4E-07	1.0E-06	5.3E-07	0.58	0.90	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Vanadium	1.0E-04	1.0E-05	2.8E-04	2.9E-05	8.5E-06	4.4E-06	2.4E-05	1.2E-05	7.53	21.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	8.5E-04	8.8E-05	1.1E-03	1.1E-04	7.3E-05	3.8E-05	9.4E-05	4.9E-05	64.44	83.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																						
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloropropane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropane (cis)	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropane (trans)	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bromodichloromethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bromoform	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon Tetrachloride	5.6E-06	5.8E-09	7.9E-06	8.2E-09	4.8E-09	2.5E-09	6.6E-09	3.5E-09	0.0042	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibromochloromethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Ethylbenzene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	5.2E-06	5.4E-09	7.9E-06	8.2E-09	4.5E-09	2.3E-09	6.6E-09	3.5E-09	0.0039	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Toluene	4.3E-06	4.4E-09	7.9E-06	8.2E-09	3.7E-09	1.9E-09	6.6E-09	3.5E-09	0.0032	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Trichloroethene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	4.0E-09	2.1E-09	6.6E-09	3.5E-09	0.0035	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Xylene	4.3E-06	4.4E-09	7.9E-06	8.2E-09	3.7E-09	1.9E-09	6.6E-09	3.5E-09	0.0032	0.0060	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE E.4-4 (cont.)
SCENARIO 4
INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	IR CHILD (mg/day)	IR ADULT (mg/day)	CF (kg/mg)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	RAF	BW CHILD (kg)	BW ADULT (kg)	AVG. TIME CHILD NON-CANCER (days)	AVG. TIME ADULT NON-CANCER (days)	AVG. TIME CANCER (days)
SEMIVOLATILES																						
1,4-Dichlorobenzene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2-Methylnaphthalene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	3.5E-06	3.6E-07	5.4E-06	5.6E-07	3.0E-07	1.5E-07	4.6E-07	2.4E-07	0.26	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	8.0E-06	8.3E-07	1.1E-05	1.1E-06	6.9E-07	3.6E-07	9.2E-07	4.8E-07	0.61	0.81	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	2.7E-06	2.8E-07	5.4E-06	5.6E-07	2.3E-07	1.2E-07	4.6E-07	2.4E-07	0.21	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzoic Acid	2.0E-05	2.1E-06	2.9E-05	3.0E-06	1.7E-06	9.0E-07	2.5E-06	1.3E-06	1.54	2.20	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	2.9E-06	3.0E-07	5.4E-06	5.6E-07	2.5E-07	1.3E-07	4.6E-07	2.4E-07	0.22	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	2.7E-06	2.7E-07	5.4E-06	5.6E-07	2.3E-07	1.2E-07	4.6E-07	2.4E-07	0.20	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	3.6E-06	3.7E-07	5.4E-06	5.6E-07	3.1E-07	1.6E-07	4.6E-07	2.4E-07	0.27	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	3.0E-06	3.1E-07	5.4E-06	5.6E-07	2.6E-07	1.3E-07	4.6E-07	2.4E-07	0.23	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	2.8E-06	2.9E-07	5.4E-06	5.6E-07	2.4E-07	1.2E-07	4.6E-07	2.4E-07	0.21	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	3.1E-06	3.3E-07	5.4E-06	5.6E-07	2.7E-07	1.4E-07	4.6E-07	2.4E-07	0.24	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	1.9E-06	1.9E-07	5.4E-06	5.6E-07	1.6E-07	8.2E-08	4.6E-07	2.4E-07	0.14	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	4.3E-06	4.5E-07	5.4E-06	5.6E-07	3.7E-07	1.9E-07	4.6E-07	2.4E-07	0.33	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobenzene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobutadiene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachloroethane	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Isophrone	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Pentachlorophenol	1.7E-05	1.8E-06	2.6E-05	2.7E-06	1.5E-06	7.6E-07	2.3E-06	1.2E-06	1.29	2.00	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	3.1E-06	3.2E-07	5.4E-06	5.6E-07	2.8E-07	1.4E-07	4.6E-07	2.4E-07	0.23	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	3.5E-07	1.8E-07	4.6E-07	2.4E-07	0.31	0.41	200	100	1.0E-06	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																						
4,4'-DDE	5.6E-08	5.8E-09	1.3E-07	1.3E-08	4.8E-09	2.5E-09	1.1E-08	5.6E-09	0.0141	0.0320	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550
4,4'-DDT	9.5E-08	9.8E-09	2.9E-07	3.0E-08	8.1E-09	4.2E-09	2.5E-08	1.3E-08	0.0239	0.0740	200	100	1.0E-06	350	6	30	0.3	14.5	70	2190	10950	25550

TABLE E.4-5
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	ABS. DOSE CHILD NON-CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NON-CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NON-CANCER MAX. (mg/kg/day)	ABS. DOSE ADULT NON-CANCER MAX. (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX. (mg/kg/day)	ABS. DOSE ADULT CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CF (kg/mg)	SCR (mg/day)	AF (unitless)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT NONCANCER (days)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS																					
Aluminum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5263.74	9550.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.18	5.40	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Arsenic	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.19	10.10	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Barium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.19	19.90	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.16	0.27	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Calcium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	583.28	854.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Chromium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.98	14.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cobalt	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.84	15.10	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Copper	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.97	24.30	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Iron	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	10609.01	25500.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Lead	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	19.34	56.60	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Magnesium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1469.77	2950.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Manganese	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	226.97	445.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.76	54.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Nickel	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.30	21.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Potassium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	221.11	255.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Selenium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.29	0.39	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Silver	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.43	0.70	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Thallium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.58	0.90	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Vanadium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.53	21.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
Zinc	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	64.44	83.00	1.0E-06	500	0.00	350	6	30	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,2-Dichloropropane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropane (cis)	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
1,3-Dichloropropane (trans)	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Benzene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Bromodichloromethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Bromoform	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Carbon Tetrachloride	7.0E-06	1.5E-06	7.0E-06	1.5E-06	6.0E-09	6.2E-09	6.0E-09	6.2E-09	0.0042	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	NA	NA	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Dibromochloromethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Ethylbenzene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Styrene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Tetrachloroethene	6.5E-06	1.3E-06	6.5E-06	1.3E-06	5.6E-09	5.8E-09	5.6E-09	5.8E-09	0.0039	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Toluene	5.3E-06	1.1E-06	5.3E-06	1.1E-06	4.6E-09	4.7E-09	4.6E-09	4.7E-09	0.0032	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Trichloroethene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	5.1E-09	5.2E-09	5.1E-09	5.2E-09	0.0038	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550
Xylene	5.3E-06	1.1E-06	5.3E-06	1.1E-06	4.6E-09	4.7E-09	4.6E-09	4.7E-09	0.0032	0.0060	1.0E-06	500	0.50	350	6	30	14.5	70	2190	10950	25550

TABLE E.4-5 (cont.)
SCENARIO 4
DERMAL CONTACT WITH CHEMICALS IN SOIL
TANK FARM FIVE

COMPOUND NAME	ABS. DOSE CHILD NON-CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT NON-CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD NON-CANCER MAX (mg/kg/day)	ABS. DOSE ADULT NON-CANCER MAX. (mg/kg/day)	ABS. DOSE CHILD CANCER MEAN (mg/kg/day)	ABS. DOSE ADULT CANCER MEAN (mg/kg/day)	ABS. DOSE CHILD CANCER MAX (mg/kg/day)	ABS. DOSE ADULT CANCER MAX. (mg/kg/day)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	CF (kg/mg)	SCR (mg/day)	AF (unitless)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	BW CHILD (kg)	BW ADULT (kg)	AT NONCANCER (days)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,4-Dichlorobenzene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
2-Methylnaphthalene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	4.3E-07	8.9E-08	4.3E-07	8.9E-08	3.7E-08	3.8E-08	3.7E-08	3.8E-08	0.26	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	1.0E-06	2.1E-07	1.0E-06	2.1E-07	8.6E-08	8.9E-08	8.6E-08	8.9E-08	0.61	0.81	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Anthracene	3.4E-07	7.0E-08	3.4E-07	7.0E-08	2.9E-08	3.0E-08	2.9E-08	3.0E-08	0.21	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzoic Acid	2.5E-06	5.3E-07	2.5E-06	5.3E-07	2.2E-07	2.3E-07	2.2E-07	2.3E-07	1.54	2.20	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(a)anthracene	3.6E-07	7.5E-08	3.6E-07	7.5E-08	3.1E-08	3.2E-08	3.1E-08	3.2E-08	0.22	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(a)pyrene	3.3E-07	6.9E-08	3.3E-07	6.9E-08	2.8E-08	2.9E-08	2.8E-08	2.9E-08	0.20	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	4.5E-07	9.3E-08	4.5E-07	9.3E-08	3.9E-08	4.0E-08	3.9E-08	4.0E-08	0.27	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	3.7E-07	7.7E-08	3.7E-07	7.7E-08	3.2E-08	3.3E-08	3.2E-08	3.3E-08	0.23	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Bis(2-ethylhexyl)phthalate	3.5E-07	7.2E-08	3.5E-07	7.2E-08	3.0E-08	3.1E-08	3.0E-08	3.1E-08	0.21	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Butylbenzylphthalate	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Chrysene	3.9E-07	8.1E-08	3.9E-07	8.1E-08	3.4E-08	3.5E-08	3.4E-08	3.5E-08	0.24	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Di-n-butylphthalate	2.3E-07	4.8E-08	2.3E-07	4.8E-08	2.0E-08	2.1E-08	2.0E-08	2.1E-08	0.14	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Fluoranthene	5.4E-07	1.1E-07	5.4E-07	1.1E-07	4.6E-08	4.8E-08	4.6E-08	4.8E-08	0.33	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Fluorene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Hexachlorobenzene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Hexachlorobutadiene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Hexachloroethane	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Isophrone	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Naphthalene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Pentachlorophenol	2.1E-06	4.4E-07	2.1E-06	4.4E-07	1.8E-07	1.9E-07	1.8E-07	1.9E-07	1.29	2.00	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Phenanthrene	3.8E-07	8.0E-08	3.8E-07	8.0E-08	3.3E-08	3.4E-08	3.3E-08	3.4E-08	0.23	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
Pyrene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	4.3E-08	4.5E-08	4.3E-08	4.5E-08	0.31	0.41	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDE	2.3E-08	4.8E-09	2.3E-08	4.8E-09	2.0E-09	2.1E-09	2.0E-09	2.1E-09	0.0141	0.0320	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550
4,4'-DDT	4.0E-08	8.2E-09	4.0E-08	8.2E-09	3.4E-09	3.5E-09	3.4E-09	3.5E-09	0.0239	0.0740	1.0E-06	500	0.05	350	6	30	14.5	70	2190	10950	25550

TABLE E.4-6
SCENARIO 4
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	INHAL. RATE (m3/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT NONCANCER (days)	AT NONCANCER (days)	AT CANCER (days)
INORGANICS																					
Aluminum	2.57E-06	5.32E-07	4.66E-06	9.65E-07	2.20E-07	2.28E-07	4.00E-07	4.14E-07	3.69E-10	5263.74	9550.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Antimony	1.55E-09	3.21E-10	2.84E-09	5.46E-10	1.33E-10	1.38E-10	2.26E-10	2.34E-10	3.69E-10	3.18	5.40	20	350	6	30	1.0	14.5	70	2190	10950	25550
Arsenic	1.07E-09	2.21E-10	4.93E-09	1.02E-09	9.15E-11	9.48E-11	4.23E-10	4.38E-10	3.69E-10	2.19	10.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Barium	6.44E-09	1.33E-09	9.71E-09	2.01E-09	5.52E-10	5.72E-10	8.32E-10	8.62E-10	3.69E-10	13.19	19.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Beryllium	7.80E-11	1.62E-11	1.32E-10	2.73E-11	6.68E-12	6.92E-12	1.13E-11	1.17E-11	3.69E-10	0.16	0.27	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cadmium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Calcium	2.85E-07	5.90E-08	4.17E-07	8.63E-08	2.44E-08	2.53E-08	3.57E-08	3.70E-08	3.69E-10	583.28	854.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chromium	2.92E-09	6.04E-10	6.83E-09	1.42E-09	2.50E-10	2.59E-10	5.86E-10	6.07E-10	3.69E-10	5.98	14.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cobalt	2.85E-09	5.90E-10	7.37E-09	1.53E-09	2.44E-10	2.53E-10	6.32E-10	6.54E-10	3.69E-10	5.84	15.10	20	350	6	30	1.0	14.5	70	2190	10950	25550
Copper	3.40E-09	7.04E-10	1.19E-08	2.46E-09	2.91E-10	3.02E-10	1.02E-09	1.05E-09	3.69E-10	6.97	24.30	20	350	6	30	1.0	14.5	70	2190	10950	25550
Cyanide	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Iron	5.18E-06	1.07E-06	1.24E-05	2.58E-06	4.44E-07	4.60E-07	1.07E-06	1.10E-06	3.69E-10	10609.01	25500.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Lead	9.44E-09	1.96E-09	2.78E-08	5.72E-09	8.09E-10	8.38E-10	2.37E-09	2.45E-09	3.69E-10	19.34	56.60	20	350	6	30	1.0	14.5	70	2190	10950	25550
Magnesium	7.17E-07	1.49E-07	1.44E-06	2.99E-07	6.15E-08	6.37E-08	1.24E-07	1.28E-07	3.69E-10	1469.77	2960.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Manganese	1.11E-07	2.29E-08	2.17E-07	4.50E-08	9.49E-09	9.83E-09	1.86E-08	1.93E-08	3.69E-10	226.97	445.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Mercury	3.69E-10	7.64E-11	2.64E-08	5.46E-09	3.16E-11	3.28E-11	2.26E-09	2.34E-09	3.69E-10	0.76	54.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Nickel	3.06E-09	6.37E-10	1.02E-08	2.12E-09	2.64E-10	2.73E-10	8.78E-10	9.10E-10	3.69E-10	6.30	21.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Potassium	1.08E-07	2.24E-08	1.24E-07	2.58E-08	9.25E-09	9.58E-09	1.07E-08	1.10E-08	3.69E-10	221.11	255.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Selenium	1.42E-10	2.94E-11	1.90E-10	3.94E-11	1.21E-11	1.26E-11	1.63E-11	1.69E-11	3.69E-10	0.29	0.39	20	350	6	30	1.0	14.5	70	2190	10950	25550
Silver	2.09E-10	4.33E-11	3.42E-10	7.08E-11	1.79E-11	1.85E-11	2.93E-11	3.03E-11	3.69E-10	0.43	0.70	20	350	6	30	1.0	14.5	70	2190	10950	25550
Sodium	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Thallium	2.84E-10	5.89E-11	4.39E-10	9.10E-11	2.44E-11	2.52E-11	3.76E-11	3.90E-11	3.69E-10	0.58	0.90	20	350	6	30	1.0	14.5	70	2190	10950	25550
Vanadium	3.68E-09	7.62E-10	1.02E-08	2.12E-09	3.15E-10	3.26E-10	8.78E-10	9.10E-10	3.69E-10	7.53	21.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Zinc	3.15E-08	6.51E-09	4.05E-08	8.39E-09	2.70E-09	2.79E-09	3.47E-09	3.60E-09	3.69E-10	64.44	83.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
VOLATILES																					
1,1-Dichloroethane	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,1-Trichloroethane	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2-Trichloroethane	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,1,2,2-Tetrachloroethane	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloroethene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,2-Dichloropropane	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropane (cis)	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
1,3-Dichloropropane (trans)	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzene	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromodichloromethane	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bromoform	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Carbon Tetrachloride	2.07E-12	4.29E-13	2.93E-12	6.07E-13	1.77E-13	1.84E-13	2.51E-13	2.60E-13	3.69E-10	0.0042	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chloroform	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.69E-10	NA	NA	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibromochloromethane	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Ethylbenzene	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Styrene	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Tetrachloroethene	1.92E-12	3.98E-13	2.93E-12	6.07E-13	1.65E-13	1.71E-13	2.51E-13	2.60E-13	3.69E-10	0.0039	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Toluene	1.57E-12	3.26E-13	2.93E-12	6.07E-13	1.35E-13	1.40E-13	2.51E-13	2.60E-13	3.69E-10	0.0032	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Trichloroethene	1.74E-12	3.61E-13	2.93E-12	6.07E-13	1.49E-13	1.55E-13	2.51E-13	2.60E-13	3.69E-10	0.0038	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550
Xylene	1.57E-12	3.26E-13	2.93E-12	6.07E-13	1.35E-13	1.40E-13	2.51E-13	2.60E-13	3.69E-10	0.0032	0.0060	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE E.4-6 (cont.)
SCENARIO 4
OUTDOOR INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST
TANK FARM FIVE

COMPOUND NAME	INTAKE CHILD NONCANCER MEAN (mg/kg/day)	INTAKE ADULT NONCANCER MEAN (mg/kg/day)	INTAKE CHILD NONCANCER MAX. (mg/kg/day)	INTAKE ADULT NONCANCER MAX. (mg/kg/day)	INTAKE CHILD CANCER MEAN (mg/kg/day)	INTAKE ADULT CANCER MEAN (mg/kg/day)	INTAKE CHILD CANCER MAX. (mg/kg/day)	INTAKE ADULT CANCER MAX. (mg/kg/day)	AMBIENT DUST CONC. (kg/m3)	CONC. IN SOIL MEAN (mg/kg)	CONC. IN SOIL MAX. (mg/kg)	INHAL. RATE (m3/day)	EF (days/yr)	ED CHILD (years)	ED ADULT (years)	RAF (unit-less)	BW CHILD (kg)	BW ADULT (kg)	AT NONCANCER (days)	AT NONCANCER (days)	AT CANCER (days)
SEMIVOLATILES																					
1,4-Dichlorobenzene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
2-Methylnaphthalene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4-Dinitrotoluene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,4,6-Trichlorophenol	1.28E-10	2.64E-11	2.00E-10	4.14E-11	1.09E-11	1.13E-11	1.72E-11	1.78E-11	3.69E-10	0.26	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
2,6-Dinitrotoluene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
3,3-Dichlorobenzidine	2.96E-10	6.14E-11	3.96E-10	8.19E-11	2.54E-11	2.63E-11	3.39E-11	3.51E-11	3.69E-10	0.61	0.81	20	350	6	30	1.0	14.5	70	2190	10950	25550
Anthracene	1.00E-10	2.08E-11	2.00E-10	4.14E-11	8.58E-12	8.90E-12	1.72E-11	1.78E-11	3.69E-10	0.21	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzoic Acid	7.50E-10	1.55E-10	1.07E-09	2.22E-10	6.43E-11	6.65E-11	9.20E-11	9.53E-11	3.69E-10	1.54	2.20	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)anthracene	1.06E-10	2.20E-11	2.00E-10	4.14E-11	9.12E-12	9.45E-12	1.72E-11	1.78E-11	3.69E-10	0.22	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(a)pyrene	9.60E-11	2.03E-11	2.00E-10	4.14E-11	8.40E-12	8.70E-12	1.72E-11	1.78E-11	3.69E-10	0.20	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(b)fluoranthene	1.33E-10	2.76E-11	2.00E-10	4.14E-11	1.14E-11	1.18E-11	1.72E-11	1.78E-11	3.69E-10	0.27	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Benzo(k)fluoranthene	1.10E-10	2.28E-11	2.00E-10	4.14E-11	9.44E-12	9.77E-12	1.72E-11	1.78E-11	3.69E-10	0.23	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2-chloroethyl)ether	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Bis(2ethylhexyl)phthalate	1.03E-10	2.13E-11	2.00E-10	4.14E-11	8.80E-12	9.11E-12	1.72E-11	1.78E-11	3.69E-10	0.21	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Butylbenzylphthalate	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Chrysene	1.16E-10	2.40E-11	2.00E-10	4.14E-11	9.94E-12	1.03E-11	1.72E-11	1.78E-11	3.69E-10	0.24	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Dibenzo(a,h)anthracene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Di-n-butylphthalate	6.84E-11	1.42E-11	2.00E-10	4.14E-11	5.87E-12	6.08E-12	1.72E-11	1.78E-11	3.69E-10	0.14	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluoranthene	1.59E-10	3.29E-11	2.00E-10	4.14E-11	1.36E-11	1.41E-11	1.72E-11	1.78E-11	3.69E-10	0.33	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Fluorene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobenzene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachlorobutadiene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Hexachloroethane	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Indeno(123cd)pyrene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Isophrone	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Naphthalene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitroso-di-n-propylamine	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
N-nitrosodiphenylamine	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Pentachlorophenol	6.30E-10	1.31E-10	9.76E-10	2.02E-10	5.40E-11	5.60E-11	8.37E-11	8.67E-11	3.69E-10	1.29	2.00	20	350	6	30	1.0	14.5	70	2190	10950	25550
Phenanthrene	1.13E-10	2.35E-11	2.00E-10	4.14E-11	9.71E-12	1.01E-11	1.72E-11	1.78E-11	3.69E-10	0.23	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
Pyrene	1.49E-10	3.09E-11	2.00E-10	4.14E-11	1.28E-11	1.32E-11	1.72E-11	1.78E-11	3.69E-10	0.31	0.41	20	350	6	30	1.0	14.5	70	2190	10950	25550
PESTICIDES																					
4,4'-DDE	6.90E-12	1.43E-12	1.56E-11	3.24E-12	5.92E-13	6.13E-13	1.34E-12	1.39E-12	3.69E-10	0.0141	0.0320	20	350	6	30	1.0	14.5	70	2190	10950	25550
4,4'-DDT	1.17E-11	2.42E-12	3.61E-11	7.48E-12	1.00E-12	1.04E-12	3.10E-12	3.21E-12	3.69E-10	0.0239	0.0740	20	350	6	30	1.0	14.5	70	2190	10950	25550

TABLE E.4-7
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.	TOTAL PATHWAY RISK	TOTAL EXPOSURE RISK	
														3.4E-03	3.4E-03	CHILD MEAN
														9.3E-03	9.3E-03	ADULT MEAN
														6.1E-03	6.2E-03	CHILD MAXIMUM
														1.7E-02	1.7E-02	ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER																
INORGANICS																
Aluminum	2.3E-01	6.3E-01	8.1E-01	2.2E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Arsenic	3.1E-04	8.6E-04	1.1E-03	3.1E-03	No	1.75E+00	A	Skin	Water/IRIS	5.5E-04	1.5E-03	2.0E-03	5.4E-03			
Barium	7.2E-04	2.0E-03	2.1E-03	5.7E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Beryllium	1.5E-05	4.0E-05	4.4E-05	1.2E-04	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	6.3E-05	1.7E-04	1.9E-04	5.1E-04			
Cadmium	7.5E-06	2.0E-05	2.1E-05	5.9E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Calcium	2.3E-01	6.4E-01	3.9E-01	1.1E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Chromium	3.8E-04	1.0E-03	1.6E-03	4.5E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Cobalt	5.4E-04	1.5E-03	1.3E-03	3.5E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Copper	4.3E-04	1.2E-03	1.3E-03	3.6E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Iron	1.1E+00	3.0E+00	3.4E+00	9.2E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Lead	4.0E-04	1.1E-03	2.7E-03	7.4E-03	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	NA	NA			
Magnesium	2.1E-01	5.7E-01	4.6E-01	1.3E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Manganese	2.3E-02	6.3E-02	4.4E-02	1.2E-01	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Nickel	9.3E-04	2.6E-03	2.3E-03	6.2E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Potassium	1.9E-02	5.3E-02	4.0E-02	1.1E-01	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Selenium	2.1E-05	5.8E-05	8.6E-05	2.3E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Silver	3.8E-05	1.0E-04	1.0E-04	2.9E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Sodium	4.9E-02	1.3E-01	1.7E-01	4.6E-01	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Thallium	1.7E-05	4.7E-05	1.7E-05	4.7E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Vanadium	1.2E-04	3.4E-04	4.6E-04	1.3E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
Zinc	2.7E-03	7.4E-03	7.0E-03	1.9E-02	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
VOLATILES																
1,1-Dichloroethane	1.4E-05	4.0E-05	9.9E-05	2.7E-04	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	NA	NA	NA			
1,1,1-Trichloroethane	2.0E-05	5.5E-05	8.1E-04	2.2E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	NA	NA	NA	NA			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	NA	NA	NA	NA			
1,2-Dichloroethene	2.5E-05	6.7E-05	2.7E-03	7.4E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA			
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.80E-02	B2	Liver	Gavage/IRIS	NA	NA	NA	NA			
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	NA	NA	NA	NA			
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	NA	NA	NA	NA			
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.90E-02	A	Leukemia	Occupational/IRIS	NA	NA	NA	NA			
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	NA	NA	NA	NA			
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	NA	NA	NA	NA			
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	NA	NA	NA	NA			
Chloroform	1.6E-05	4.4E-05	3.0E-05	8.2E-05	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	9.9E-08	2.7E-07	1.8E-07	5.0E-07			
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA			
Ethylbenzene	1.5E-05	4.1E-05	2.0E-04	5.5E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	NA	NA	NA	NA			
Tetrachloroethene	1.2E-05	3.3E-05	3.0E-05	8.2E-05	No	5.10E-02	B2	Liver	Gavage/HEAST	6.1E-07	1.7E-06	1.5E-06	4.2E-06			
Toluene	1.4E-05	4.0E-05	1.6E-04	4.5E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			
Trichloroethene	1.5E-05	4.2E-05	1.6E-04	4.5E-04	No	1.10E-02	B2	Liver	Gavage/HEAST	1.7E-07	4.6E-07	1.8E-06	4.9E-06			
Xylene	1.6E-05	4.4E-05	4.3E-04	1.2E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA			

TABLE E.4-7 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER													
SEMIVOLATILES													
1,4-Dichlorobenzene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	2.40E-02	C	Liver	Gavage/IRIS	7.2E-07	2.0E-06	1.0E-06	2.8E-06
2-Methylnaphthalene	3.1E-05	8.5E-05	3.0E-04	8.3E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	2.0E-05	5.6E-05	2.9E-05	8.0E-05
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.10E-02	B2	Leukemia	Diet/IRIS	NA	NA	NA	NA
2,6-Dinitrotoluene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	2.0E-05	5.6E-05	2.9E-05	8.0E-05
3,3-Dichlorobenzidine	6.0E-05	1.6E-04	8.6E-05	2.3E-04	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	2.7E-05	7.4E-05	3.9E-05	1.1E-04
Anthracene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzoic Acid	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(a)anthracene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Liver,lung,skin	IRIS	3.4E-04	9.4E-04	4.9E-04	1.4E-03
Benzo(a)pyrene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Stomach, lung	IRIS	3.4E-04	9.4E-04	4.9E-04	1.4E-03
Benzo(b)fluoranthene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung,thorax,skin	IRIS	3.4E-04	9.4E-04	4.9E-04	1.4E-03
Benzo(k)fluoranthene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung,thorax,skin	IRIS	3.4E-04	9.4E-04	4.9E-04	1.4E-03
Bis(2-chloroethyl)ether	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.10E+00	B2	Liver	IRIS	3.3E-05	9.0E-05	4.7E-05	1.3E-04
Bis(2ethylhexyl)phthalate	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.40E-02	B2	Liver	IRIS	4.2E-07	1.1E-06	6.0E-07	1.6E-06
Butylbenzylphthalate	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA
Chrysene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Malignant lymphoma	IRIS	3.4E-04	9.4E-04	4.9E-04	1.4E-03
Dibenzo(a,h)anthracene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, mammary	IRIS	3.4E-04	9.4E-04	4.9E-04	1.4E-03
Di-n-butylphthalate	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluoranthene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluorene	3.0E-05	8.1E-05	1.9E-04	5.3E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Hexachlorobenzene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	4.8E-05	1.3E-04	6.9E-05	1.9E-04
Hexachlorobutadiene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	2.3E-06	6.4E-06	3.3E-06	9.2E-06
Hexachloroethane	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	4.2E-07	1.1E-06	6.0E-07	1.6E-06
Indeno(123cd)pyrene	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	1.15E+01	B2	Lung, skin	IRIS	3.4E-04	9.4E-04	4.9E-04	1.4E-03
Isophrone	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	1.2E-07	3.4E-07	1.8E-07	4.8E-07
Naphthalene	2.8E-05	7.6E-05	1.2E-04	3.2E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitroso-di-n-propylamine	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	2.1E-04	5.7E-04	3.0E-04	8.2E-04
N-nitrosodiphenylamine	3.0E-05	8.2E-05	4.3E-05	1.2E-04	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	1.5E-07	4.0E-07	2.1E-07	5.8E-07
Pentachlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	NA	NA	NA	NA
Phenanthrene	2.9E-05	8.0E-05	1.8E-04	4.9E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Pyrene	2.7E-05	7.4E-05	9.0E-05	2.5E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
PESTICIDES													
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.40E-01	B2	Liver	Diet/IRIS	NA	NA	NA	NA

TABLE E.4-8
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.	TOTAL PATHWAY RISK
														5.5E-07 CHILD MEAN
														5.7E-07 ADULT MEAN
														5.5E-07 CHILD MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL														5.7E-07 ADULT MAXIMUM
VOLATILES														
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	NA	NA	NA	
1,1,1-Trichloroethane	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
1,1,2-Trichloroethane	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	2.9E-10	3.0E-10	2.9E-10	3.0E-10	
1,1,2,2-Tetrachloroethane	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	1.0E-09	1.0E-09	1.0E-09	1.0E-09	
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
1,2-Dichloropropane	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	6.80E-02	B2	Liver	Gavage/IRIS	3.4E-10	3.6E-10	3.4E-10	3.6E-10	
1,3-Dichloropropane (cis)	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	9.1E-10	9.4E-10	9.1E-10	9.4E-10	
1,3-Dichloropropane (trans)	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	9.1E-10	9.4E-10	9.1E-10	9.4E-10	
Benzene	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.5E-10	1.5E-10	1.5E-10	1.5E-10	
Bromodichloromethane	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	6.6E-10	6.8E-10	6.6E-10	6.8E-10	
Bromoform	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	4.0E-11	4.1E-11	4.0E-11	4.1E-11	
Carbon Tetrachloride	8.0E-09	8.2E-09	8.0E-09	8.2E-09	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	7.8E-10	8.1E-10	7.8E-10	8.1E-10	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	NA	NA	NA	NA	
Dibromochloromethane	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	4.2E-10	4.4E-10	4.2E-10	4.4E-10	
Ethylbenzene	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Styrene	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.5E-10	1.6E-10	1.5E-10	1.6E-10	
Tetrachloroethene	5.6E-09	5.8E-09	5.6E-09	5.8E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	2.8E-10	2.9E-10	2.8E-10	2.9E-10	
Toluene	4.6E-09	4.7E-09	4.6E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Trichloroethene	5.1E-09	5.2E-09	5.1E-09	5.2E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	5.6E-11	5.8E-11	5.6E-11	5.8E-11	
Xylene	4.6E-09	4.7E-09	4.6E-09	4.7E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
SEMIVOLATILES														
1,4-Dichlorobenzene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	2.40E-02	C	Liver	Gavage/IRIS	1.0E-09	1.1E-09	1.0E-09	1.1E-09	
2-Methylnaphthalene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
2,4-Dinitrotoluene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	2.9E-08	3.0E-08	2.9E-08	3.0E-08	
2,4,6-Trichlorophenol	3.7E-08	3.8E-08	3.7E-08	3.8E-08	No	1.10E-02	B2	Leukemia	Diet/IRIS	4.1E-10	4.2E-10	4.1E-10	4.2E-10	
2,6-Dinitrotoluene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	2.9E-08	3.0E-08	2.9E-08	3.0E-08	
3,3-Dichlorobenzidine	8.6E-08	8.9E-08	8.6E-08	8.9E-08	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	3.9E-08	4.0E-08	3.9E-08	4.0E-08	
Anthracene	2.9E-08	3.0E-08	2.9E-08	3.0E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Benzoic Acid	2.2E-07	2.3E-07	2.2E-07	2.3E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Benzo(a)anthracene	3.1E-08	3.2E-08	3.1E-08	3.2E-08	No	NA	B2	Liver,lung,skin	IRIS	NA	NA	NA	NA	
Benzo(a)pyrene	2.8E-08	2.9E-08	2.8E-08	2.9E-08	No	NA	B2	Stomach, lung	IRIS	NA	NA	NA	NA	
Benzo(b)fluoranthene	3.9E-08	4.0E-08	3.9E-08	4.0E-08	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA	NA	NA	
Benzo(k)fluoranthene	3.2E-08	3.3E-08	3.2E-08	3.3E-08	No	NA	B2	Lung,thorax,skin	IRIS	NA	NA	NA	NA	
Bis(2-chloroethyl)ether	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	1.10E+00	B2	Liver	IRIS	4.8E-08	4.9E-08	4.8E-08	4.9E-08	
Bis(2ethylhexyl)phthalate	3.0E-08	3.1E-08	3.0E-08	3.1E-08	No	1.40E-02	B2	Liver	IRIS	4.2E-10	4.3E-10	4.2E-10	4.3E-10	
Butylbenzylphthalate	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA	
Chrysene	3.4E-08	3.5E-08	3.4E-08	3.5E-08	No	NA	B2	Malignant lymphoma	IRIS	NA	NA	NA	NA	
Dibenzo(a,h)anthracene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	NA	B2	Lung, mammary	IRIS	NA	NA	NA	NA	
Di-n-butylphthalate	2.0E-08	2.1E-08	2.0E-08	2.1E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Fluoranthene	4.6E-08	4.8E-08	4.6E-08	4.8E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Fluorene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Hexachlorobenzene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	6.9E-08	7.2E-08	6.9E-08	7.2E-08	
Hexachlorobutadiene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	3.4E-09	3.5E-09	3.4E-09	3.5E-09	
Hexachloroethane	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	6.1E-10	6.3E-10	6.1E-10	6.3E-10	
Indeno(123cd)pyrene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	NA	B2	Lung, skin	IRIS	NA	NA	NA	NA	
Isophrone	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	1.8E-10	1.8E-10	1.8E-10	1.8E-10	
Naphthalene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
N-nitroso-di-n-propylamine	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	3.0E-07	3.1E-07	3.0E-07	3.1E-07	
N-nitrosodiphenylamine	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	2.1E-10	2.2E-10	2.1E-10	2.2E-10	
Pentachlorophenol	1.8E-07	1.9E-07	1.8E-07	1.9E-07	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	2.2E-08	2.3E-08	2.2E-08	2.3E-08	
Phenanthrene	3.3E-08	3.4E-08	3.3E-08	3.4E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Pyrene	4.3E-08	4.5E-08	4.3E-08	4.5E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
PESTICIDES														
4,4'-DDE	2.0E-09	2.1E-09	2.0E-09	2.1E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	6.8E-10	7.1E-10	6.8E-10	7.1E-10	
4,4'-DDT	3.4E-09	3.5E-09	3.4E-09	3.5E-09	No	3.40E-01	B2	Liver	Diet/IRIS	1.2E-09	1.2E-09	1.2E-09	1.2E-09	

TABLE E.4-9
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.	TOTAL PATHWAY RISK	
														3.3E-05	CHILD MEAN
														1.7E-05	ADULT MEAN
														6.5E-05	CHILD MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST														3.3E-05	ADULT MAXIMUM
INORGANICS															
Aluminum	6.0E-03	3.1E-03	1.1E-02	5.6E-03	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Antimony	3.6E-06	1.9E-06	6.1E-06	3.2E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Arsenic	2.5E-06	1.3E-06	1.1E-05	5.9E-06	No	1.75E+00	A	Skin	Water/IRIS	4.3E-06	2.2E-06	2.0E-05	1.0E-05		
Barium	1.5E-05	7.7E-06	2.3E-05	1.2E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Beryllium	1.8E-07	9.4E-08	3.1E-07	1.6E-07	No	4.30E+00	B2	Gross tumors, all sites	Water/IRIS	7.8E-07	4.0E-07	1.3E-06	6.8E-07		
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Calcium	6.6E-04	3.4E-04	9.7E-04	5.0E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Chromium	6.6E-06	3.5E-06	1.6E-05	8.2E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Cobalt	6.6E-06	3.4E-06	1.7E-05	8.9E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Copper	7.9E-06	4.1E-06	2.8E-05	1.4E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Iron	1.2E-02	6.2E-03	2.9E-02	1.5E-02	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Lead	1.1E-05	3.4E-06	3.2E-05	1.0E-05	No	NA	B2	Renal tumors	Oral/IRIS	NA	NA	NA	NA		
Magnesium	1.7E-03	8.6E-04	3.4E-03	1.7E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Manganese	2.6E-04	1.3E-04	5.0E-04	2.6E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Mercury	8.6E-07	4.4E-07	6.1E-06	3.2E-06	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Nickel	7.1E-06	3.7E-06	2.4E-05	1.2E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Potassium	2.5E-04	1.3E-04	2.9E-04	1.5E-04	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Selenium	3.3E-07	1.7E-07	4.4E-07	2.3E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Silver	4.9E-07	2.5E-07	7.9E-07	4.1E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Thallium	6.6E-07	3.4E-07	1.0E-06	5.3E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Vanadium	8.5E-06	4.4E-06	2.4E-05	1.2E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Zinc	7.3E-05	3.8E-05	9.4E-05	4.9E-05	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
VOLATILES															
1,1-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Hemangiosarcoma,mammary	NA/IRIS,HEAST	NA	NA	NA	NA		
1,1,1-Trichloroethane	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
1,1,2-Trichloroethane	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	5.70E-02	C	Hepatocellular carcinoma	Gavage/HEAST	2.3E-10	1.2E-10	3.9E-10	2.0E-10		
1,1,2,2-Tetrachloroethane	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	2.00E-01	C	Hepatocellular carcinoma	Gavage/HEAST	8.1E-10	4.2E-10	1.4E-09	7.0E-10		
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
1,2-Dichloropropane	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	6.80E-02	B2	Liver	Gavage/IRIS	2.8E-10	1.4E-10	4.6E-10	2.4E-10		
1,3-Dichloropropane (cis)	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	7.3E-10	3.8E-10	1.2E-09	6.3E-10		
1,3-Dichloropropane (trans)	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	1.80E-01	B2	Stomach,liver,adrenal,thyroid	Gavage/HEAST	7.3E-10	3.8E-10	1.2E-09	6.3E-10		
Benzene	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	2.90E-02	A	Leukemia	Occupational/IRIS	1.2E-10	6.1E-11	2.0E-10	1.0E-10		
Bromodichloromethane	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular adenomas	Gavage/IRIS	5.3E-10	2.7E-10	8.8E-10	4.6E-10		
Bromoform	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	7.90E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	3.2E-11	1.7E-11	5.4E-11	2.8E-11		
Carbon Tetrachloride	4.8E-09	2.5E-09	6.8E-09	3.5E-09	No	1.30E-01	B2	Hepatocellular carcinomas	Oral/IRIS	5.3E-10	3.2E-10	8.8E-10	4.6E-10		
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.10E-03	B2	Kidney tumors	Oral/IRIS	NA	NA	NA	NA		
Dibromochloromethane	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	8.40E-02	C	Hepatocellular carcinoma	Gavage/IRIS	3.4E-10	1.8E-10	5.7E-10	3.0E-10		
Ethylbenzene	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Styrene	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	3.00E-02	B2	Lung and bronchi	Gavage/HEAST	1.2E-10	6.3E-11	2.0E-10	1.1E-10		
Tetrachloroethene	4.5E-09	2.3E-09	6.8E-09	3.5E-09	No	5.10E-02	B2	Liver	Gavage/HEAST	2.3E-10	1.2E-10	3.5E-10	1.8E-10		
Toluene	3.7E-09	1.9E-09	6.8E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Trichloroethene	4.0E-09	2.1E-09	6.8E-09	3.5E-09	No	1.10E-02	B2	Liver	Gavage/HEAST	4.4E-11	2.3E-11	7.5E-11	3.9E-11		
Xylene	3.7E-09	1.9E-09	6.8E-09	3.5E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		

TABLE E.4-9 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST													
SEMIVOLATILES													
1,4-Dichlorobenzene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	2.40E-02	C	Liver	Gavage/IRIS	8.3E-09	4.3E-09	1.1E-08	5.8E-09
2-Methylnaphthalene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	6.80E-01	B2	Liver, mammary gland	Diet/IRIS	2.4E-07	1.2E-07	3.2E-07	1.6E-07
2,4,6-Trichlorophenol	3.0E-07	1.5E-07	4.6E-07	2.4E-07	No	1.10E-02	B2	Leukemia	Diet/IRIS	3.3E-09	1.7E-09	5.1E-09	2.6E-09
2,6-Dinitrotoluene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	6.80E-01	B2	Liver, mammary	Diet/IRIS	2.4E-07	1.2E-07	3.2E-07	1.6E-07
3,3-Dichlorobenzidine	6.9E-07	3.6E-07	9.2E-07	4.8E-07	No	4.50E-01	B2	Mammary adenocarcinomas	Water/IRIS	3.1E-07	1.6E-07	4.1E-07	2.1E-07
Anthracene	2.3E-07	1.2E-07	4.6E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzoic Acid	1.7E-06	9.0E-07	2.5E-06	1.3E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(a)anthracene	2.5E-07	1.3E-07	4.6E-07	2.4E-07	No	1.15E+01	B2	Liver,lung,skin	IRIS	2.8E-06	1.5E-06	5.3E-06	2.8E-06
Benzo(a)pyrene	2.3E-07	1.2E-07	4.6E-07	2.4E-07	No	1.15E+01	B2	Stomach, lung	IRIS	2.6E-06	1.4E-06	5.3E-06	2.8E-06
Benzo(b)fluoranthene	3.1E-07	1.6E-07	4.6E-07	2.4E-07	No	1.15E+01	B2	Lung,thorax,skin	IRIS	3.6E-06	1.8E-06	5.3E-06	2.8E-06
Benzo(k)fluoranthene	2.6E-07	1.3E-07	4.6E-07	2.4E-07	No	1.15E+01	B2	Lung,thorax,skin	IRIS	2.9E-06	1.5E-06	5.3E-06	2.8E-06
Bis(2-chloroethyl)ether	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	1.10E+00	B2	Liver	IRIS	3.8E-07	2.0E-07	5.1E-07	2.6E-07
Bis(2ethylhexyl)phthalate	2.4E-07	1.2E-07	4.6E-07	2.4E-07	No	1.40E-02	B2	Liver	IRIS	3.3E-09	1.7E-09	6.5E-09	3.4E-09
Butylbenzylphthalate	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	NA	C	Leukemia	Diet/IRIS	NA	NA	NA	NA
Chrysene	2.7E-07	1.4E-07	4.6E-07	2.4E-07	No	1.15E+01	B2	Malignant lymphoma	IRIS	3.1E-06	1.6E-06	5.3E-06	2.8E-06
Dibenzo(a,h)anthracene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	1.15E+01	B2	Lung, mammary	IRIS	4.0E-06	2.1E-06	5.3E-06	2.8E-06
Di-n-butylphthalate	1.8E-07	9.2E-08	4.6E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluoranthene	3.7E-07	1.9E-07	4.6E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluorene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Hexachlorobenzene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	1.60E+00	B2	Hepatocellular carcinomas	Diet/IRIS	5.5E-07	2.9E-07	7.4E-07	3.9E-07
Hexachlorobutadiene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	7.80E-02	C	Renal tubular adenocarcinoma	Diet/IRIS	2.7E-08	1.4E-08	3.6E-08	1.9E-08
Hexachloroethane	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	1.40E-02	C	Hepatocellular carcinomas	Gavage/IRIS	4.8E-09	2.5E-09	6.5E-09	3.4E-09
Indeno(123cd)pyrene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	1.15E+01	B2	Lung, skin	IRIS	4.0E-06	2.1E-06	5.3E-06	2.8E-06
Isophrone	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	4.10E-03	C	Preputial gland, kidney	Gavage/IRIS	1.4E-09	7.3E-10	1.9E-09	9.9E-10
Naphthalene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitroso-di-n-propylamine	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	7.00E+00	B2	Hepatocellular carcinomas	Water/IRIS	2.4E-06	1.3E-06	3.3E-06	1.7E-06
N-nitrosodiphenylamine	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	4.90E-03	B2	Transitional cell carcinoma	Diet/IRIS	1.7E-09	8.8E-10	2.3E-09	1.2E-09
Pentachlorophenol	1.5E-06	7.6E-07	2.3E-06	1.2E-06	No	1.20E-01	B2	Liver,pheochromocytoma	Oral/IRIS	1.8E-07	9.1E-08	2.7E-07	1.4E-07
Phenanthrene	2.6E-07	1.4E-07	4.6E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Pyrene	3.5E-07	1.8E-07	4.6E-07	2.4E-07	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
PESTICIDES													
4,4'-DDE	4.6E-09	2.5E-09	1.1E-08	5.6E-09	No	3.40E-01	B2	Hepatocellular carcinoma	Diet/IRIS	1.6E-09	8.5E-10	3.7E-09	1.9E-09
4,4'-DDT	8.1E-09	4.2E-09	2.5E-08	1.3E-08	No	3.40E-01	B2	Liver	Diet/IRIS	2.8E-09	1.4E-09	8.6E-09	4.4E-09

TABLE E.4-10
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.	TOTAL PATHWAY RISK	
														7.8E-07	CHILD MEAN
														8.1E-07	ADULT MEAN
														2.6E-06	CHILD MAXIMUM
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS														2.7E-06	ADULT MAXIMUM
VOLATILES															
1,1-Dichloroethane	7.2E-06	7.4E-06	4.9E-05	5.1E-05	No	NA	C	Mammary gland, liver	IRIS,HEAST	NA	NA	NA	NA		
1,1,1-Trichloroethane	1.0E-05	1.0E-05	4.0E-04	4.2E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	NA	NA	NA	NA		
1,2-Dichloroethene	1.2E-05	1.3E-05	1.3E-03	1.4E-03	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA		
1,3-Dichloropropene (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA	NA	NA		
1,3-Dichloropropene (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E-01	B2	Lung	Inhalation/HEAST	NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.9E-02	A	Leukemia	Occupational/IRIS	NA	NA	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3.9E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	NA	NA	NA	NA		
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.3E-01	B2	Liver	Gavage/HEAST	NA	NA	NA	NA		
Chloroform	8.0E-06	8.3E-06	1.5E-05	1.5E-05	No	8.1E-02	B2	Liver	IRIS	6.5E-07	6.7E-07	1.2E-06	1.2E-06		
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA		
Ethylbenzene	7.4E-06	7.6E-06	1.0E-04	1.0E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.0E-03	B2	Leukemia	HEAST	NA	NA	NA	NA		
Tetrachloroethene	8.0E-06	8.2E-06	1.5E-05	1.5E-05	No	1.8E-03	B2	Leukemia, Liver	HEAST	1.1E-08	1.1E-08	2.7E-08	2.8E-08		
Toluene	7.2E-06	7.4E-06	8.1E-05	8.4E-05	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		
Trichloroethene	7.6E-06	7.8E-06	8.1E-05	8.4E-05	No	1.7E-02	B2	Lung	HEAST	1.3E-07	1.3E-07	1.4E-06	1.4E-06		
Xylene	8.0E-06	8.3E-06	2.1E-04	2.2E-04	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA		

TABLE E.4-11
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.	TOTAL PATHWAY RISK
														1.6E-06 CHILD MEAN
														1.6E-06 ADULT MEAN
														4.7E-06 CHILD MAXIMUM
EXPOSURE PATHWAY: INHALATION OF ARBORNE CHEMICALS ADSORBED TO DUST														4.9E-06 ADULT MAXIMUM
INORGANICS														
Aluminum	2.2E-07	2.3E-07	4.0E-07	4.1E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Antimony	1.3E-10	1.4E-10	2.3E-10	2.3E-10	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Arsenic	9.2E-11	9.5E-11	4.2E-10	4.4E-10	No	5.0E+01	A	Respiratory Tract	Occupational/IRIS	4.6E-09	4.7E-09	2.1E-08	2.2E-08	
Barium	5.5E-10	5.7E-10	9.3E-10	9.6E-10	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Beryllium	6.7E-12	6.9E-12	1.1E-11	1.2E-11	No	8.4E+00	B2	Lung	Occupational/IRIS	5.6E-11	5.8E-11	9.5E-11	9.8E-11	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.3E+00	B1	Respiratory Tract	Occupational/IRIS	NA	NA	NA	NA	
Calcium	2.4E-08	2.5E-08	3.8E-08	3.7E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Chromium	2.5E-10	2.6E-10	5.9E-10	6.1E-10	No	4.2E+01	A	Lung	Occupational/IRIS	1.1E-08	1.1E-08	2.5E-08	2.5E-08	
Cobalt	2.4E-10	2.5E-10	6.3E-10	6.5E-10	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Copper	2.9E-10	3.0E-10	1.0E-09	1.1E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Iron	4.4E-07	4.6E-07	1.1E-06	1.1E-06	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Lead	8.1E-10	8.4E-10	2.4E-09	2.5E-09	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA	
Magnesium	6.1E-08	6.4E-08	1.2E-07	1.3E-07	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Manganese	9.5E-09	9.8E-09	1.9E-08	1.9E-08	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Mercury	3.2E-11	3.3E-11	2.3E-09	2.3E-09	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Nickel	2.6E-10	2.7E-10	8.8E-10	9.1E-10	No	8.4E-01	A	Lung and nasal tumors	Occupational/IRIS	2.2E-10	2.3E-10	7.4E-10	7.6E-10	
Potassium	9.2E-09	9.6E-09	1.1E-08	1.1E-08	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Selenium	1.2E-11	1.3E-11	1.6E-11	1.7E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Silver	1.8E-11	1.9E-11	2.9E-11	3.0E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Thallium	2.4E-11	2.5E-11	3.8E-11	3.9E-11	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Vanadium	3.2E-10	3.3E-10	8.8E-10	9.1E-10	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Zinc	2.7E-09	2.8E-09	3.5E-09	3.6E-09	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
VOLATILES														
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA	C	Mammary gland, liver	IRIS,HEAST	NA	NA	NA	NA	
1,1,1-Trichloroethane	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
1,1,2-Trichloroethane	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS	8.5E-15	8.8E-15	1.4E-14	1.5E-14	
1,1,2,2-Tetrachloroethane	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS	3.0E-14	3.1E-14	5.1E-14	5.3E-14	
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
1,2-Dichloropropane	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA	
1,3-Dichloropropane (cis)	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	1.3E-01	B2	Lung	Inhalation/HEAST	1.9E-14	2.0E-14	3.3E-14	3.4E-14	
1,3-Dichloropropane (trans)	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	1.3E-01	B2	Lung	Inhalation/HEAST	1.9E-14	2.0E-14	3.3E-14	3.4E-14	
Benzene	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	2.9E-02	A	Leukemia	Occupational/IRIS	4.3E-15	4.5E-15	7.3E-15	7.6E-15	
Bromodichloromethane	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Bromoform	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	3.9E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS	5.7E-15	6.0E-15	9.7E-15	1.0E-14	
Carbon Tetrachloride	1.8E-13	1.8E-13	2.5E-13	2.6E-13	No	1.3E-01	B2	Liver	Gavage/HEAST	2.3E-14	2.4E-14	3.3E-14	3.4E-14	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	8.1E-02	B2	Liver	IRIS	NA	NA	NA	NA	
Dibromochloromethane	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA	
Ethylbenzene	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Styrene	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	2.0E-03	B2	Leukemia	HEAST	3.0E-16	3.1E-16	5.0E-16	5.2E-16	
Tetrachloroethene	1.6E-13	1.7E-13	2.5E-13	2.6E-13	No	1.8E-03	B2	Leukemia, Liver	HEAST	3.0E-16	3.1E-16	4.6E-16	4.7E-16	
Toluene	1.3E-13	1.4E-13	2.5E-13	2.6E-13	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA	
Trichloroethene	1.5E-13	1.5E-13	2.5E-13	2.6E-13	No	1.7E-02	B2	Lung	HEAST	2.5E-15	2.6E-15	4.3E-15	4.4E-15	
Xylene	1.3E-13	1.4E-13	2.5E-13	2.6E-13	No	NA	D		NA/IRIS,HEAST	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

TABLE E.4-11 (cont.)
SCENARIO 4
CANCER RISK ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	SF (mg/kg/day)-1	WEIGHT OF EVIDENCE	TYPE OF CANCER	SF BASIS/ SOURCE	CHEM. RISK CHILD MEAN	CHEM. RISK ADULT MEAN	CHEM. RISK CHILD MAX.	CHEM. RISK ADULT MAX.
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST													
SEMIVOLATILES													
1,4-Dichlorobenzene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	C		HEAST	NA	NA	NA	NA
2-Methylnaphthalene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA			NA/IRIS,HEAST	NA	NA	NA	NA
2,4-Dinitrotoluene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	B2	Liver, mammary	IRIS	NA	NA	NA	NA
2,4,6-Trichlorophenol	1.1E-11	1.1E-11	1.7E-11	1.8E-11	No	9.0E-04	B2	Leukemia	IRIS	9.8E-16	1.0E-14	1.5E-14	1.6E-14
2,6-Dinitrotoluene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	B2	Liver, mammary	NA/IRIS,HEAST	NA	NA	NA	NA
3,3-Dichlorobenzidine	2.5E-11	2.6E-11	3.4E-11	3.5E-11	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA
Anthracene	8.6E-12	8.9E-12	1.7E-11	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzoic Acid	8.4E-11	8.7E-11	9.2E-11	9.5E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Benzo(a)anthracene	9.1E-12	9.4E-12	1.7E-11	1.8E-11	No	6.1E+00	B2		IRIS	5.6E-11	5.8E-11	1.0E-10	1.1E-10
Benzo(a)pyrene	8.4E-12	8.7E-12	1.7E-11	1.8E-11	No	6.1E+00	B2	Respiratory tract	Inhalation/HEAST	5.1E-11	5.3E-11	1.0E-10	1.1E-10
Benzo(b)fluoranthene	1.1E-11	1.2E-11	1.7E-11	1.8E-11	No	6.1E+00	B2		IRIS	7.0E-11	7.2E-11	1.0E-10	1.1E-10
Benzo(k)fluoranthene	9.4E-12	9.8E-12	1.7E-11	1.8E-11	No	6.1E+00	B2		IRIS	NA	NA	NA	NA
Bis(2-chloroethyl)ether	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	1.1E+00	B2	Liver	Oral/HEAST	1.4E-11	1.5E-11	1.9E-11	2.0E-11
Bis(2ethylhexyl)phthalate	8.8E-12	9.1E-12	1.7E-11	1.8E-11	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA
Butylbenzylphthalate	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	C		NA/IRIS,HEAST	NA	NA	NA	NA
Chrysene	9.9E-12	1.0E-11	1.7E-11	1.8E-11	No	6.1E+00	B2		IRIS	6.1E-11	6.3E-11	1.0E-10	1.1E-10
Dibenzo(a,h)anthracene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	6.1E+00	B2		IRIS	7.8E-11	8.1E-11	1.0E-10	1.1E-10
Di-n-butylphthalate	5.9E-12	6.1E-12	1.7E-11	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluoranthene	1.4E-11	1.4E-11	1.7E-11	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Fluorene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Hexachlorobenzene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	1.6E+00	B2	Hepatocellular carcinoma	Oral/RIS	2.0E-11	2.1E-11	2.7E-11	2.8E-11
Hexachlorobutadiene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	7.8E-02	C	Kidney	Diet/IRIS	1.0E-12	1.0E-12	1.3E-12	1.4E-12
Hexachloroethane	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	1.4E-02	C	Hepatocellular carcinoma	Gavage/RIS	1.8E-13	1.9E-13	2.4E-13	2.5E-13
Indeno(123cd)pyrene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	6.1E+00	B2		IRIS	7.8E-11	8.1E-11	1.0E-10	1.1E-10
Isophrone	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	C		NA/IRIS,HEAST	NA	NA	NA	NA
Naphthalene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitroso-di-n-propylamine	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA
N-nitrosodiphenylamine	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA
Pentachlorophenol	5.4E-11	5.6E-11	8.4E-11	8.7E-11	No	NA	B2		NA/IRIS,HEAST	NA	NA	NA	NA
Phenanthrene	9.7E-12	1.0E-11	1.7E-11	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
Pyrene	1.3E-11	1.3E-11	1.7E-11	1.8E-11	No	NA	D		NA/IRIS,HEAST	NA	NA	NA	NA
PESTICIDES													
4,4'-DDE	5.9E-13	6.1E-13	1.3E-12	1.4E-12	No	NA	B2		HEAST	NA	NA	NA	NA
4,4'-DDT	1.0E-12	1.0E-12	3.1E-12	3.2E-12	No	3.4E-01	B2	Liver	Diet/IRIS,HEAST	3.4E-13	3.5E-13	1.1E-12	1.1E-12

TABLE E.4-12
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONF. LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MAXIMUM	HAZ.QUO. ADULT MAXIMUM	PATHWAY HAZARD INDEX (HI)	TOTAL EXP. (HI)	
																1.3E+01	13.3	CHILD MEAN
																7.1E+00	7.1	ADULT MEAN
																3.6E+01	36.6	CHILD MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER																2.0E+01	19.9	ADULT MAXIMUM
INORGANICS																		
Aluminum	2.7E+00	1.5E+00	9.5E+00	5.2E+00	No	DI			NA/HEAST			NA	NA	NA	NA			
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST			NA	NA	NA	NA			
Arsenic	3.6E-03	2.0E-03	1.3E-02	7.3E-03	No	1E-03		Keratosis and hyperpigmentation	Oral/HEAST	1000	1	3.6E+00	2.0E+00	1.3E+01	7.3E+00			
Barium	8.5E-03	4.6E-03	2.4E-02	1.3E-02	No	7E-02	Medium	None observed	Water/IRIS	3	1	1.2E-01	6.6E-02	3.5E-01	1.9E-01			
Beryllium	1.7E-04	9.3E-05	5.1E-04	2.8E-04	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	3.4E-02	1.9E-02	1.0E-01	5.6E-02			
Cadmium	8.7E-05	4.8E-05	2.6E-04	1.4E-04	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	8.7E-02	4.8E-02	2.6E-01	1.4E-01			
Calcium	2.7E+00	1.5E+00	4.6E+00	2.6E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Chromium	4.4E-03	2.4E-03	1.9E-02	1.1E-02	No	5E-03	Low	None observed	Water/IRIS,HEAST	500	1	8.8E-01	4.8E-01	3.8E+00	2.1E+00			
Cobalt	6.3E-03	3.4E-03	1.5E-02	8.1E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Copper	5.0E-03	2.7E-03	1.5E-02	8.3E-03	No	4E-02		Local GI irritation	HEAST			1.2E-01	6.8E-02	3.8E-01	2.1E-01			
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss, thyroid, myelin degeneration	Diet/IRIS	100	5	NA	NA	NA	NA			
Iron	1.3E+01	6.9E+00	3.9E+01	2.2E+01	No	DI			NA/HEAST			NA	NA	NA	NA			
Lead	4.7E-03	2.6E-03	3.1E-02	1.7E-02	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA			
Magnesium	2.4E+00	1.3E+00	5.4E+00	3.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Manganese	2.7E-01	1.5E-01	5.1E-01	2.8E-01	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	2.7E+00	1.5E+00	5.1E+00	2.8E+00			
Mercury	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04		Kidney effects	Oral/HEAST	1000		NA	NA	NA	NA			
Nickel	1.1E-02	6.0E-03	2.6E-02	1.5E-02	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Potassium	2.3E-01	1.2E-01	4.6E-01	2.5E-01	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Selenium	2.5E-04	1.3E-04	1.0E-03	5.5E-04	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	4.9E-02	2.7E-02	2.0E-01	1.1E-01			
Silver	4.5E-04	2.4E-04	1.2E-03	6.7E-04	No	3E-03	Medium	Argyria	Oral/IRIS,HEAST	2	1	1.5E-01	8.2E-02	4.1E-01	2.2E-01			
Sodium	5.7E-01	3.1E-01	2.0E+00	1.1E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Thallium	2.0E-04	1.1E-04	2.0E-04	1.1E-04	No	7E-05		Increased SGOT and LDH levels, alopecia	Diet/HEAST	3000		2.9E+00	1.6E+00	2.9E+00	1.6E+00			
Vanadium	1.4E-03	7.9E-04	5.4E-03	3.0E-03	No	7E-03		None observed	Water/HEAST	100		2.1E-01	1.1E-01	7.7E-01	4.2E-01			
Zinc	3.1E-02	1.7E-02	8.1E-02	4.5E-02	No	2E-01		Anemia	Therap./HEAST	10		1.6E-01	8.6E-02	4.1E-01	2.2E-01			
VOLATILES																		
1,1-Dichloroethane	1.7E-04	9.2E-05	1.1E-03	6.3E-04	No	1E-01		None observed	Inhal./HEAST	1000		1.7E-03	9.2E-04	1.1E-02	6.3E-03			
1,1,1-Trichloroethane	2.4E-04	1.3E-04	9.5E-03	5.2E-03	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	2.6E-03	1.4E-03	1.1E-01	5.8E-02			
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	NA	NA	NA	NA			
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
1,2-Dichloroethene	2.9E-04	1.6E-04	3.1E-02	1.7E-02	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		2.9E-02	1.6E-02	3.1E+00	1.7E+00			
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	DI			NA/HEAST			NA	NA	NA	NA			
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	NA	NA	NA	NA			
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	NA	NA	NA	NA			
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	NA	NA	NA	NA			
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	NA	NA	NA	NA			
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	NA	NA	NA	NA			
Chloroform	1.9E-04	1.0E-04	3.5E-04	1.9E-04	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	1.9E-02	1.0E-02	3.5E-02	1.9E-02			
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	NA	NA	NA	NA			
Ethylbenzene	1.7E-04	9.5E-05	2.3E-03	1.3E-03	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	1.7E-02	9.5E-03	2.3E-01	1.3E-01			
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	NA	NA	NA	NA			
Tetrachloroethene	1.4E-04	7.7E-05	3.5E-04	1.9E-04	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	1.4E-02	7.7E-03	3.5E-02	1.9E-02			
Toluene	1.7E-04	9.3E-05	1.9E-03	1.0E-03	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	8.5E-04	4.6E-04	9.5E-03	5.2E-03			
Trichloroethene	1.8E-04	9.8E-05	1.9E-03	1.0E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA			
Xylene	1.9E-04	1.0E-04	5.0E-03	2.7E-03	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	9.4E-05	5.2E-05	2.5E-03	1.4E-03			

TABLE E.4-12 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MAXIMUM	HAZ.QUO. ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN DRINKING WATER															
SEMIVOLATILES															
1,4-Dichlorobenzene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	3.6E-04	2.0E-04	3.5E-03	1.9E-03	No	4E-03			NA/IRIS,HEAST			9.1E-02	5.0E-02	8.9E-01	4.9E-01
2,4-Dinitrotoluene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	DI			NA/IRIS,HEAST			NA	NA	NA	NA
2,4,6-Trichlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	DI			NA/HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	7.0E-04	3.8E-04	1.0E-03	5.5E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Anthracene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	1.2E-03	6.4E-04	1.7E-03	9.1E-04
Benzoic Acid	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	NA	NA	NA	NA
Benzo(a)anthracene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			8.7E-02	4.8E-02	1.2E-01	6.8E-02
Benzo(a)pyrene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			8.7E-02	4.8E-02	1.2E-01	6.8E-02
Benzo(b)fluoranthene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			8.7E-02	4.8E-02	1.2E-01	6.8E-02
Benzo(k)fluoranthene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			8.7E-02	4.8E-02	1.2E-01	6.8E-02
Bis(2-chloroethyl)ether	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.7E-02	9.6E-03	2.5E-02	1.4E-02
Butylbenzylphthalate	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	1.7E-03	9.6E-04	2.5E-03	1.4E-03
Chrysene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-03			NA/HEAST			8.7E-02	4.8E-02	1.2E-01	6.8E-02
Dibenzo(a,h)anthracene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			8.7E-02	4.8E-02	1.2E-01	6.8E-02
Di-n-butylphthalate	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	3.5E-03	1.9E-03	5.0E-03	2.7E-03
Fluoranthene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	8.7E-03	4.8E-03	1.2E-02	6.8E-03
Fluorene	3.4E-04	1.9E-04	2.2E-03	1.2E-03	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	8.6E-03	4.7E-03	5.6E-02	3.1E-02
Hexachlorobenzene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	4.4E-01	2.4E-01	6.2E-01	3.4E-01
Hexachlorobutadiene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	1.7E-01	9.6E-02	2.5E-01	1.4E-01
Hexachloroethane	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	3.5E-01	1.9E-01	5.0E-01	2.7E-01
Indeno(123cd)pyrene	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	4E-03			NA/IRIS,HEAST			8.7E-02	4.8E-02	1.2E-01	6.8E-02
Isophrone	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	1.7E-03	9.6E-04	2.5E-03	1.4E-03
Naphthalene	3.3E-04	1.8E-04	1.3E-03	7.4E-04	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		8.1E-02	4.5E-02	3.4E-01	1.8E-01
N-nitroso-di-n-propylamine	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	3.5E-04	1.9E-04	5.0E-04	2.7E-04	No	DI			NA/HEAST			NA	NA	NA	NA
Pentachlorophenol	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	NA	NA	NA	NA
Phenanthrene	3.4E-04	1.9E-04	2.1E-03	1.2E-03	No	4E-03			NA/HEAST			8.6E-02	4.7E-02	5.2E-01	2.9E-01
Pyrene	3.2E-04	1.7E-04	1.0E-03	5.8E-04	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.1E-02	5.8E-03	3.5E-02	1.9E-02
PESTICIDES															
4,4'-DDE	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	NA	NA	NA	NA

TABLE E.4-13
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MAXIMUM	HAZ.QUO. ADULT MAXIMUM	PATHWAY HAZARD INDEX (HI)
																3.2E-03 CHILD MEAN
																6.7E-04 ADULT MEAN
																3.2E-03 CHILD MAXIMUM
EXPOSURE PATHWAY: DERMAL CONTACT WITH CHEMICALS IN SOIL																6.7E-04 ADULT MAXIMUM
VOLATILES																
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	NA	NA	NA	
1,1,1-Trichloroethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	6.6E-07	1.4E-07	6.6E-07	1.4E-07	
1,1,2-Trichloroethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.5E-05	3.1E-06	1.5E-05	3.1E-06	
1,1,2,2-Tetrachloroethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	NA	NA	NA	
1,2-Dichloropropane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	DI			NA/HEAST			NA	NA	NA	NA	
1,3-Dichloropropene (cis)	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2.0E-04	4.1E-05	2.0E-04	4.1E-05	
1,3-Dichloropropene (trans)	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	2.0E-04	4.1E-05	2.0E-04	4.1E-05	
Benzene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromodichloromethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	2.9E-06	6.1E-07	2.9E-06	6.1E-07	
Bromoform	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	2.9E-06	6.1E-07	2.9E-06	6.1E-07	
Carbon Tetrachloride	7.0E-06	1.5E-06	7.0E-06	1.5E-06	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	1.0E-04	2.1E-05	1.0E-04	2.1E-05	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	NA	NA	NA	
Dibromochloromethane	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	2.9E-06	6.1E-07	2.9E-06	6.1E-07	
Ethylbenzene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	5.9E-06	1.2E-06	5.9E-06	1.2E-06	
Styrene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	2.9E-07	6.1E-08	2.9E-07	6.1E-08	
Tetrachloroethene	6.5E-06	1.3E-06	6.5E-06	1.3E-06	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	6.5E-06	1.3E-06	6.5E-06	1.3E-06	
Toluene	5.3E-06	1.1E-06	5.3E-06	1.1E-06	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	2.7E-07	5.5E-08	2.7E-07	5.5E-08	
Trichloroethene	5.9E-06	1.2E-06	5.9E-06	1.2E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Xylene	5.3E-06	1.1E-06	5.3E-06	1.1E-06	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	2.7E-06	5.5E-06	2.7E-06	5.5E-06	
SEMIVOLATILES																
1,4-Dichlorobenzene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
2-Methylnaphthalene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	4E-03			NA/IRIS,HEAST			1.3E-04	2.6E-05	1.3E-04	2.6E-05	
2,4-Dinitrotoluene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	DI			NA/IRIS,HEAST			NA	NA	NA	NA	
2,4,6-Trichlorophenol	4.3E-07	8.9E-08	4.3E-07	8.9E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
2,6-Dinitrotoluene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	DI			NA/HEAST			NA	NA	NA	NA	
3,3-Dichlorobenzidine	1.0E-06	2.1E-07	1.0E-06	2.1E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Anthracene	3.4E-07	7.0E-08	3.4E-07	7.0E-08	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	1.1E-06	2.3E-07	1.1E-06	2.3E-07	
Benzoic Acid	2.5E-06	5.3E-07	2.5E-06	5.3E-07	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	6.3E-07	1.3E-07	6.3E-07	1.3E-07	
Benzo(a)anthracene	3.6E-07	7.5E-08	3.6E-07	7.5E-08	No	4E-03			NA/IRIS,HEAST			9.0E-05	1.9E-05	9.0E-05	1.9E-05	
Benzo(a)pyrene	3.3E-07	6.9E-08	3.3E-07	6.9E-08	No	4E-03			NA/IRIS,HEAST			8.3E-05	1.7E-05	8.3E-05	1.7E-05	
Benzo(b)fluoranthene	4.5E-07	9.3E-08	4.5E-07	9.3E-08	No	4E-03			NA/IRIS,HEAST			1.1E-04	2.3E-05	1.1E-04	2.3E-05	
Benzo(k)fluoranthene	3.7E-07	7.7E-08	3.7E-07	7.7E-08	No	4E-03			NA/IRIS,HEAST			9.3E-05	1.9E-05	9.3E-05	1.9E-05	
Bis(2-chloroethyl)ether	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bis(2ethylhexyl)phthalate	3.5E-07	7.2E-08	3.5E-07	7.2E-08	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.7E-05	3.6E-06	1.7E-05	3.6E-06	
Butylbenzylphthalate	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	2.5E-06	5.2E-07	2.5E-06	5.2E-07	
Chrysene	3.9E-07	8.1E-08	3.9E-07	8.1E-08	No	4E-03			NA/HEAST			9.8E-05	2.0E-05	9.8E-05	2.0E-05	
Dibenzo(a,h)anthracene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	4E-03			NA/IRIS,HEAST			1.3E-04	2.6E-05	1.3E-04	2.6E-05	
Di-n-butylphthalate	2.3E-07	4.8E-08	2.3E-07	4.8E-08	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	2.3E-06	4.8E-07	2.3E-06	4.8E-07	
Fluoranthene	5.4E-07	1.1E-07	5.4E-07	1.1E-07	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	1.3E-05	2.8E-06	1.3E-05	2.8E-06	
Fluorene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	1.3E-05	2.6E-06	1.3E-05	2.6E-06	
Hexachlorobenzene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	6.3E-04	1.3E-04	6.3E-04	1.3E-04	
Hexachlorobutadiene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	2.5E-04	5.2E-05	2.5E-04	5.2E-05	
Hexachloroethane	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	5.0E-04	1.0E-04	5.0E-04	1.0E-04	
Indeno(123cd)pyrene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	4E-03			NA/IRIS,HEAST			1.3E-04	2.6E-05	1.3E-04	2.6E-05	
Isophrone	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	2.5E-06	5.2E-07	2.5E-06	5.2E-07	
Naphthalene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		1.3E-04	2.6E-05	1.3E-04	2.6E-05	
N-nitroso-di-n-propylamine	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
N-nitrosodiphenylamine	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	DI			NA/HEAST			NA	NA	NA	NA	
Pentachlorophenol	2.1E-06	4.4E-07	2.1E-06	4.4E-07	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	7.1E-05	1.5E-05	7.1E-05	1.5E-05	
Phenanthrene	3.8E-07	8.0E-08	3.8E-07	8.0E-08	No	4E-03			NA/HEAST			9.5E-05	2.0E-05	9.5E-05	2.0E-05	
Pyrene	5.0E-07	1.0E-07	5.0E-07	1.0E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.7E-05	3.5E-06	1.7E-05	3.5E-06	
PESTICIDES																
4,4'-DDE	2.3E-08	4.8E-09	2.3E-08	4.8E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
4,4'-DDT	4.0E-08	8.2E-09	4.0E-08	8.2E-09	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	7.9E-05	1.6E-05	7.9E-05	1.6E-05	

TABLE E.4-14
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MAXIMUM	HAZ.QUO. ADULT MAXIMUM	PATHWAY HAZARD INDEX (HI)	
																3.7E-01	CHILD MEAN
																3.8E-02	ADULT MEAN
																3.1E+00	CHILD MAXIMUM
																3.2E-01	ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST																	
INORGANICS																	
Aluminum	7.0E-02	7.2E-03	1.3E-01	1.3E-02	No	DI			NA/HEAST			NA	NA	NA	NA		
Antimony	4.2E-05	4.4E-06	7.1E-05	7.4E-06	No	4E-04	Low	Longevity, blood glucose, cholesterol	Water/IRIS,HEAST			1.1E-01	1.1E-02	1.8E-01	1.8E-02		
Arsenic	2.9E-05	3.0E-06	1.3E-04	1.4E-05	No	1E-03		Keratosis and hyperpigmentation	Oral/HEAST	1000	1	2.9E-02	3.0E-03	1.3E-01	1.4E-02		
Barium	1.7E-04	1.8E-05	2.8E-04	2.7E-05	No	7E-02	Medium	None observed	Water/IRIS	3	1	2.5E-03	2.6E-04	3.8E-03	3.9E-04		
Beryllium	2.1E-06	2.2E-07	3.6E-06	3.7E-07	No	5E-03	Low	None observed	Water/IRIS,HEAST	100	1	4.2E-04	4.4E-05	7.1E-04	7.4E-05		
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-03	High	Proteinuria	Diet/IRIS,HEAST	10	1	NA	NA	NA	NA		
Calcium	7.7E-03	8.0E-04	1.1E-02	1.2E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Chromium	7.9E-05	8.2E-06	1.9E-04	1.9E-05	No	5E-03	Low	None observed	Water/IRIS,HEAST	500	1	1.6E-02	1.6E-03	3.7E-02	3.8E-03		
Cobalt	7.7E-05	8.0E-06	2.0E-04	2.1E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Copper	9.2E-05	9.5E-06	3.2E-04	3.3E-05	No	4E-02		Local GI irritation	HEAST			2.3E-03	2.4E-04	8.0E-03	8.3E-04		
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2E-02	Medium	Weight loss, thyroid, myelin degeneration	Diet/IRIS	100	5	NA	NA	NA	NA		
Iron	1.4E-01	1.5E-02	3.4E-01	3.5E-02	No	DI			NA/HEAST			NA	NA	NA	NA		
Lead	1.3E-04	7.9E-06	3.7E-04	2.3E-05	No	NA		Neurobehavioral effects	NA/IRIS,HEAST			NA	NA	NA	NA		
Magnesium	1.9E-02	2.0E-03	3.9E-02	4.1E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Manganese	3.0E-03	3.1E-04	5.9E-03	6.1E-04	No	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	1	1	3.0E-02	3.1E-03	5.9E-02	6.1E-03		
Mercury	1.0E-05	1.0E-06	7.1E-04	7.4E-05	No	3E-04		Kidney effects	Oral/HEAST	1000		3.3E-02	3.5E-03	2.4E+00	2.5E-01		
Nickel	8.3E-05	8.6E-06	2.8E-04	2.9E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Potassium	2.9E-03	3.0E-04	3.4E-03	3.5E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Selenium	3.8E-06	4.0E-07	5.2E-06	5.3E-07	No	5E-03	Medium	Clinical selenosis	Diet/IRIS	3	1	7.7E-04	8.0E-05	1.0E-03	1.1E-04		
Silver	5.7E-06	5.9E-07	9.3E-06	9.6E-07	No	3E-03	Medium	Argyria	Oral/IRIS,HEAST	2	1	1.9E-03	2.0E-04	3.1E-03	3.2E-04		
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Thallium	7.7E-06	8.0E-07	1.2E-05	1.2E-06	No	7E-05		Increased SGOT and LDH levels, alopecia	Diet/HEAST	3000		1.1E-01	1.1E-02	1.7E-01	1.8E-02		
Vanadium	1.0E-04	1.0E-05	2.8E-04	2.9E-05	No	7E-03		None observed	Water/HEAST	100		1.4E-02	1.5E-03	4.0E-02	4.1E-03		
Zinc	8.5E-04	8.8E-05	1.1E-03	1.1E-04	No	2E-01		Anemia	Therap./HEAST	10		4.3E-03	4.4E-04	5.5E-03	5.7E-04		
VOLATILES																	
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-01		None observed	Inhal./HEAST	1000		NA	NA	NA	NA		
1,1,1-Trichloroethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	9E-02	Medium	No adverse effect	Inhal./IRIS	1000	1	5.2E-07	5.4E-08	8.8E-07	9.1E-08		
1,1,2-Trichloroethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	4E-03	Medium	Clinical serum chemistry	Water/IRIS	1000	1	1.2E-05	1.2E-06	2.0E-05	2.1E-06		
1,1,2,2-Tetrachloroethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	3000		NA	NA	NA	NA		
1,2-Dichloropropane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	DI			NA/HEAST			NA	NA	NA	NA		
1,3-Dichloropropane (cis)	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	1.6E-04	1.6E-05	2.6E-04	2.7E-05		
1,3-Dichloropropane (trans)	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	3E-04	Low	Increased kidney weight	Diet/IRIS	10,000	1	1.6E-04	1.6E-05	2.6E-04	2.7E-05		
Benzene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	1000	1	2.4E-06	2.4E-07	4.0E-06	4.1E-07		
Bromoform	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	2.4E-06	2.4E-07	4.0E-06	4.1E-07		
Carbon Tetrachloride	5.6E-06	5.8E-09	7.9E-06	8.2E-09	No	7E-04	Medium	Liver lesions	Gavage/IRIS	1000	1	8.0E-05	8.3E-06	1.1E-04	1.2E-05		
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	1000	1	NA	NA	NA	NA		
Dibromochloromethane	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	2E-02	Medium	Hepatic lesions	Gavage/IRIS	1000	1	2.4E-06	2.4E-07	4.0E-06	4.1E-07		
Ethylbenzene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	1E-02	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	1000	1	4.7E-06	4.9E-07	7.9E-06	8.2E-07		
Styrene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	2E-01	Medium	RBC and liver effects	Oral/IRIS	1000	1	2.4E-07	2.4E-08	4.0E-07	4.1E-08		
Tetrachloroethene	5.2E-06	5.4E-09	7.9E-06	8.2E-09	No	1E-02	Medium	Hepatotoxicity, weight gain	Gavage/IRIS	100	1	5.2E-06	5.4E-07	7.9E-06	8.2E-07		
Toluene	4.3E-06	4.4E-09	7.9E-06	8.2E-09	No	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	1000	1	2.1E-07	2.2E-08	4.0E-07	4.1E-08		
Trichloroethene	4.7E-06	4.9E-09	7.9E-06	8.2E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Xylene	4.3E-06	4.4E-09	7.9E-06	8.2E-09	No	2E+00	Medium	Hyperactivity,dec. body wt, inc. mortality	Gavage/IRIS	100	1	2.1E-06	2.2E-09	4.0E-06	4.1E-09		

TABLE E.4-14 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MAXIMUM	HAZ.QUO. ADULT MAXIMUM
EXPOSURE PATHWAY: INGESTION OF CHEMICALS IN SOIL AND HOUSE DUST															
SEMIVOLATILES															
1,4-Dichlorobenzene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2-Methylnaphthalene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	4E-03			NA/IRIS,HEAST			1.0E-03	1.0E-04	1.4E-03	1.4E-04
2,4-Dinitrotoluene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	DI			NA/IRIS,HEAST			NA	NA	NA	NA
2,4,6-Trichlorophenol	3.5E-06	3.6E-07	5.4E-06	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	DI			NA/HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	8.0E-06	8.3E-07	1.1E-05	1.1E-06	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Anthracene	2.7E-06	2.8E-07	5.4E-06	5.6E-07	No	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	3000	1	9.1E-06	9.4E-07	1.8E-05	1.9E-06
Benzoic Acid	2.0E-05	2.1E-06	2.9E-05	3.0E-06	No	4E+00	Medium		Oral/IRIS,HEAST	1	1	5.1E-06	5.3E-07	7.3E-06	7.5E-07
Benzo(a)anthracene	2.9E-06	3.0E-07	5.4E-06	5.6E-07	No	4E-03			NA/IRIS,HEAST			7.2E-04	7.5E-05	1.4E-03	1.4E-04
Benzo(a)pyrene	2.7E-06	2.7E-07	5.4E-06	5.6E-07	No	4E-03			NA/IRIS,HEAST			6.6E-04	6.9E-05	1.4E-03	1.4E-04
Benzo(b)fluoranthene	3.6E-06	3.7E-07	5.4E-06	5.6E-07	No	4E-03			NA/IRIS,HEAST			9.0E-04	9.3E-05	1.4E-03	1.4E-04
Benzo(k)fluoranthene	3.0E-06	3.1E-07	5.4E-06	5.6E-07	No	4E-03			NA/IRIS,HEAST			7.5E-04	7.7E-05	1.4E-03	1.4E-04
Bis(2-chloroethyl)ether	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	2.8E-06	2.9E-07	5.4E-06	5.6E-07	No	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	1000	1	1.4E-04	1.4E-05	2.7E-04	2.8E-05
Butylbenzylphthalate	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	2E-01	Low	Effects on weight gain,testes,liver,kidney	Diet/IRIS,HEAST	1000	1	2.0E-05	2.1E-06	2.7E-05	2.8E-06
Chrysene	3.1E-06	3.3E-07	5.4E-06	5.6E-07	No	4E-03			NA/HEAST			7.9E-04	8.1E-05	1.4E-03	1.4E-04
Dibenzo(a,h)anthracene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	4E-03			NA/IRIS,HEAST			1.0E-03	1.0E-04	1.4E-03	1.4E-04
Di-n-butylphthalate	1.9E-06	1.9E-07	5.4E-06	5.6E-07	No	1E-01	Low	Increased mortality	Diet/IRIS	1000	1	1.9E-05	1.9E-06	5.4E-05	5.6E-06
Fluoranthene	4.3E-06	4.5E-07	5.4E-06	5.6E-07	No	4E-02	Low	Nephropathy;liver,blood and clinical effects	Gavage/IRIS	3000	1	1.1E-04	1.1E-05	1.4E-04	1.4E-05
Fluorene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	4E-02	Low	Neuropathy,liver,blood effects	Gavage/IRIS	3000	1	1.0E-04	1.0E-05	1.4E-04	1.4E-05
Hexachlorobenzene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	8E-04	Medium	Liver effects	Diet/IRIS	100	1	5.0E-03	5.2E-04	6.8E-03	7.0E-04
Hexachlorobutadiene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	2E-03	Low	Kidney toxicity	Diet/IRIS	100	1	2.0E-03	2.1E-04	2.7E-03	2.8E-04
Hexachloroethane	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	1E-03	Medium	Atrophy and degeneration of renal tubes	Diet/IRIS	1000	1	4.0E-03	4.2E-04	5.4E-03	5.6E-04
Indeno(123cd)pyrene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	4E-03			NA/IRIS,HEAST			1.0E-03	1.0E-04	1.4E-03	1.4E-04
Isophrone	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	2E-01	Low	No observed effects	Oral/IRIS	1000	1	2.0E-05	2.1E-06	2.7E-05	2.8E-06
Naphthalene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	4E-03		Decreased body weight gain	Gavage/HEAST	10,000		1.0E-03	1.0E-04	1.4E-03	1.4E-04
N-nitroso-di-n-propylamine	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	DI			NA/HEAST			NA	NA	NA	NA
Pentachlorophenol	1.7E-05	1.8E-06	2.6E-05	2.7E-06	No	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	100	1	5.7E-04	5.9E-05	8.9E-04	9.1E-05
Phenanthrene	3.1E-06	3.2E-07	5.4E-06	5.6E-07	No	4E-03			NA/HEAST			7.7E-04	8.0E-05	1.4E-03	1.4E-04
Pyrene	4.0E-06	4.2E-07	5.4E-06	5.6E-07	No	3E-02	Low	Kidney effects	Gavage/IRIS	3000	1	1.3E-04	1.4E-05	1.8E-04	1.9E-05
PESTICIDES															
4,4'-DDE	5.6E-06	5.8E-09	1.3E-07	1.3E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	9.5E-06	9.8E-09	2.9E-07	3.0E-08	No	5E-04	Medium	Liver lesions	Diet/IRIS	100	1	1.9E-04	2.0E-05	5.9E-04	6.1E-05

TABLE E.4-15
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	PATHWAY HAZARD INDEX (HI)	
																2.7E-03	CHILD MEAN
																5.6E-04	ADULT MEAN
																5.4E-02	CHILD MAXIMUM
EXPOSURE PATHWAY: INHALATION OF AIRBORNE (VAPOR PHASE) CHEMICALS																1.1E-02	ADULT MAXIMUM
VOLATILES																	
1,1-Dichloroethane	8.4E-05	1.7E-05	5.7E-04	1.2E-04	No	1.0E-01		Kidney damage	HEAST	1000		8.4E-04	1.7E-04	5.7E-03	1.2E-03		
1,1,1-Trichloroethane	1.2E-04	2.4E-05	4.7E-03	9.8E-04	No	3.0E-01		Hepatotoxicity	HEAST	1000		3.9E-04	8.1E-05	1.6E-02	3.3E-03		
1,1,2-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,1,2,2-Tetrachloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloroethene	1.4E-04	2.9E-05	1.6E-02	3.2E-03	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,2-Dichloropropane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
1,3-Dichloropropane (cis)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	30		NA	NA	NA	NA		
1,3-Dichloropropane (trans)	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	30		NA	NA	NA	NA		
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromodichloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Bromoform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Carbon Tetrachloride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Chloroform	9.3E-05	1.9E-05	1.7E-04	3.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Dibromochloromethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Ethylbenzene	8.6E-05	1.8E-05	1.2E-03	2.4E-04	No	3.0E-01	Low	Developmental toxicity	IRIS	300	1	2.9E-04	5.9E-05	3.9E-03	8.0E-04		
Styrene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Tetrachloroethene	7.0E-05	1.4E-05	1.7E-04	3.6E-05	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Toluene	8.4E-05	1.7E-05	9.4E-04	2.0E-04	No	6.0E-01		CNS effects, eyes and nose irritation	HEAST	100		1.4E-04	2.9E-05	1.6E-03	3.3E-04		
Trichloroethene	8.8E-05	1.8E-05	9.4E-04	2.0E-04	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA		
Xylene	9.3E-05	1.9E-05	2.5E-03	5.1E-04	No	9.0E-02		CNS effects, eyes and nose irritation	HEAST	100		1.0E-03	2.1E-04	2.8E-02	5.7E-03		

TABLE E.4-16
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJ. FOR ABS.	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT./ ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	PATHWAY HAZARD INDEX (HI)
																1.2E-03 CHILD MEAN
																2.5E-04 ADULT MEAN
																5.2E-03 CHILD MAXIMUM
																1.1E-03 ADULT MAXIMUM
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST																
INORGANICS																
Aluminum	2.6E-06	5.3E-07	4.7E-06	9.7E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Antimony	1.6E-09	3.2E-10	2.8E-09	5.5E-10	No	4.0E-04						3.9E-06	8.0E-07	6.6E-06	1.4E-06	
Arsenic	1.1E-09	2.2E-10	4.9E-09	1.0E-09	No	1.0E-03						1.1E-06	2.2E-07	4.9E-06	1.0E-06	
Barium	6.4E-09	1.3E-09	9.7E-09	2.0E-09	No	1.0E-04		Fetotoxicity	HEAST	1000		6.4E-05	1.3E-05	9.7E-05	2.0E-05	
Beryllium	7.8E-11	1.6E-11	1.3E-10	2.7E-11	No	5.0E-03						1.6E-06	3.2E-09	2.6E-06	5.5E-09	
Cadmium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	5.0E-04						NA	NA	NA	NA	
Calcium	2.8E-07	5.9E-08	4.2E-07	8.8E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Chromium	2.9E-08	6.0E-10	6.8E-08	1.4E-09	No	6.0E-04		Nasal mucosa atrophy	HEAST	300		4.9E-06	1.0E-08	1.1E-05	2.4E-06	
Cobalt	2.8E-09	5.9E-10	7.4E-09	1.5E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Copper	3.4E-09	7.0E-10	1.2E-08	2.5E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Cyanide	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	2.0E-02		Myelin degeneration				NA	NA	NA	NA	
Iron	5.2E-06	1.1E-06	1.2E-05	2.5E-06	No	NA			NA/HEAST			NA	NA	NA	NA	
Lead	9.4E-09	2.0E-09	2.8E-08	5.7E-09	No	NA		CNS effects	NA/IRIS,HEAST			NA	NA	NA	NA	
Magnesium	7.2E-07	1.5E-07	1.4E-06	3.0E-07	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Manganese	1.1E-07	2.3E-08	2.2E-07	4.5E-08	No	1.0E-04	Medium	Incr. prevalance of resp. disease and psychomotor dist.	Occupational/IRIS	300	3	1.1E-03	2.3E-04	2.2E-03	4.5E-04	
Mercury	3.7E-10	7.6E-11	2.6E-08	5.5E-09	No	9.0E-06		Neurotoxicity	Occupational/HEAST	30		4.1E-05	8.5E-06	2.9E-03	6.1E-04	
Nickel	3.1E-09	6.4E-10	1.0E-08	2.1E-09	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Potassium	1.1E-07	2.2E-08	1.2E-07	2.6E-08	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Selenium	1.4E-10	2.9E-11	1.9E-10	3.9E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Silver	2.1E-10	4.3E-11	3.4E-10	7.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Sodium	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Thallium	2.8E-10	5.9E-11	4.4E-10	9.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Vanadium	3.7E-09	7.6E-10	1.0E-08	2.1E-09	No	7.0E-03						5.3E-07	1.1E-07	1.5E-06	3.0E-07	
Zinc	3.1E-08	6.5E-09	4.1E-08	8.4E-09	No	2.0E-01						1.6E-07	3.3E-08	2.0E-07	4.2E-08	
VOLATILES																
1,1-Dichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	1.0E-01		Kidney damage	HEAST	1000		NA	NA	NA	NA	
1,1,1-Trichloroethane	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	3.0E-01		Hepatotoxicity	HEAST	1000		5.8E-12	1.2E-12	9.8E-12	2.0E-12	
1,1,2-Trichloroethane	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloroethene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,2-Dichloropropane	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
1,3-Dichloropropene (cis)	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	30		2.9E-10	6.0E-11	4.9E-10	1.0E-10	
1,3-Dichloropropene (trans)	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	6.0E-03	High	Hypertrophy, hyperplasia in nasal mucosa	IRIS	30		2.9E-10	6.0E-11	4.9E-10	1.0E-10	
Benzene	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromodichloromethane	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Bromoform	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Carbon Tetrachloride	2.1E-12	4.3E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Chloroform	0.0E+00	0.0E+00	0.0E+00	0.0E+00	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Dibromochloromethane	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Ethylbenzene	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	3.0E-01	Low	Developmental toxicity	IRIS	300	1	5.8E-12	1.2E-12	9.8E-12	2.0E-12	
Styrene	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Tetrachloroethene	1.9E-12	4.0E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Toluene	1.6E-12	3.3E-13	2.9E-12	6.1E-13	No	6.0E-01		CNS effects, eyes and nose irritation	HEAST	100		2.6E-12	5.4E-13	4.9E-12	1.0E-12	
Trichloroethene	1.7E-12	3.6E-13	2.9E-12	6.1E-13	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA	
Xylene	1.6E-12	3.3E-13	2.9E-12	6.1E-13	No	2.0E-02		CNS effects, eyes and nose irritation	HEAST	100		1.7E-11	3.6E-12	3.3E-11	6.7E-12	

TABLE E.4-16 (cont.)
SCENARIO 4
CHRONIC HAZARD INDEX ESTIMATES
TANK FARM FIVE

COMPOUND NAME	CDI CHILD MEAN (mg/kg/day)	CDI ADULT MEAN (mg/kg/day)	CDI CHILD MAX. (mg/kg/day)	CDI ADULT MAX. (mg/kg/day)	CDI ADJUSTED FOR ABSORPTION	RFD (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	RFD SOURCE/ BASIS	RFD UNCERT. ADJ.	MF	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN	HAZ.QUO. CHILD MEAN	HAZ.QUO. ADULT MEAN
EXPOSURE PATHWAY: INHALATION OF AIRBORNE CHEMICALS ADSORBED TO DUST															
SEMIVOLATILES															
1,4-Dichlorobenzene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	2.0E-01		Liver and kidney effects	HEAST	100		7.5E-10	1.5E-10	1.0E-09	2.1E-10
2-Methylnaphthalene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			3.7E-08	7.7E-09	5.0E-08	1.0E-08
2,4-Dinitrotoluene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/HEAST			NA	NA	NA	NA
2,4,6-Trichlorophenol	1.3E-10	2.6E-11	2.0E-10	4.1E-11	No	NA			NA/HEAST			NA	NA	NA	NA
2,6-Dinitrotoluene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/HEAST			NA	NA	NA	NA
3,3-Dichlorobenzidine	3.0E-10	6.1E-11	4.0E-10	8.2E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Anthracene	1.0E-10	2.1E-11	2.0E-10	4.1E-11	No	3.0E-01						3.3E-10	6.9E-11	6.7E-10	1.4E-10
Benzoic Acid	7.5E-10	1.6E-10	1.1E-09	2.2E-10	No	NA			NA/HEAST			NA	NA	NA	NA
Benzo(a)anthracene	1.1E-10	2.2E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			2.7E-08	5.5E-09	5.0E-08	1.0E-08
Benzo(a)pyrene	9.8E-11	2.0E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			2.4E-08	5.1E-09	5.0E-08	1.0E-08
Benzo(b)fluoranthene	1.3E-10	2.8E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			3.3E-08	6.9E-09	5.0E-08	1.0E-08
Benzo(k)fluoranthene	1.1E-10	2.3E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			2.8E-08	5.7E-09	5.0E-08	1.0E-08
Bis(2-chloroethyl)ether	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Bis(2ethylhexyl)phthalate	1.0E-10	2.1E-11	2.0E-10	4.1E-11	No	2.0E-02						5.1E-09	1.1E-09	1.0E-08	2.1E-09
Butylbenzylphthalate	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	2.0E-01						7.5E-10	1.5E-10	1.0E-09	2.1E-10
Chrysene	1.2E-10	2.4E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			2.9E-08	6.0E-09	5.0E-08	1.0E-08
Dibenzo(a,h)anthracene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			3.7E-08	7.7E-09	5.0E-08	1.0E-08
Di-n-butylphthalate	6.8E-11	1.4E-11	2.0E-10	4.1E-11	No	1.0E-01						6.8E-10	1.4E-10	2.0E-09	4.1E-10
Fluoranthene	1.6E-10	3.3E-11	2.0E-10	4.1E-11	No	4.0E-02						4.0E-09	8.2E-10	5.0E-09	1.0E-09
Fluorene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	4.0E-02						3.7E-09	7.7E-10	5.0E-09	1.0E-09
Hexachlorobenzene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Hexachlorobutadiene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Hexachloroethane	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Indeno(123cd)pyrene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			3.7E-08	7.7E-09	5.0E-08	1.0E-08
Isophrone	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Naphthalene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	4.0E-03						3.7E-08	7.7E-09	5.0E-08	1.0E-08
N-nitroso-di-n-propylamine	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
N-nitrosodiphenylamine	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Pentachlorophenol	6.3E-10	1.3E-10	9.8E-10	2.0E-10	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
Phenanthrene	1.1E-10	2.3E-11	2.0E-10	4.1E-11	No	4.0E-03			NA/IRIS,HEAST			2.8E-08	5.9E-09	5.0E-08	1.0E-08
Pyrene	1.5E-10	3.1E-11	2.0E-10	4.1E-11	No	3.0E-02						5.0E-09	1.0E-09	6.7E-09	1.4E-09
PESTICIDES															
4,4'-DDE	6.9E-12	1.4E-12	1.6E-11	3.2E-12	No	NA			NA/IRIS,HEAST			NA	NA	NA	NA
4,4'-DDT	1.2E-11	2.4E-12	3.6E-11	7.5E-12	No	5.0E-04						2.3E-08	4.8E-09	7.2E-08	1.5E-08

APPENDIX F

TOXICOLOGICAL PROFILES

TRC

APPENDIX F

RISK ASSESSMENT METHODS

F.1 Inorganics

Aluminum

Aluminum is one of the most abundant metals in the earth's crust, and it is ubiquitous in air, water and soil (Goyer, 1986). The toxicity of aluminum can be divided into three major categories: (1) the effect of aluminum compounds on the gastrointestinal tract; (2) the effect of inhalation of aluminum compounds; and (3) systemic toxicity of aluminum (Alfrey, 1981). Aluminum compounds can alter absorption of other elements in the gastrointestinal tract (i.e., fluoride, calcium, iron, cholesterol, phosphorus) and alter gastrointestinal tract motility by inhibition of acetylcholine-induced contractions. Inhalation of aluminum dusts can lead to the development of pulmonary fibrosis producing both restrictive and obstructive pulmonary disease (Schaver, 1948). A progressive fatal neurologic syndrome has been noted in patients on long-term intermittent hemodialysis treatment for chronic renal failure (Alfrey et al., 1972) and may be due to aluminum intoxication. Symptoms in these patients include a speech disorder followed by dementia, convulsions and myoclonus. Aluminum content of brain, muscle and bone tissues is increased in these patients. Sources of the excess aluminum may be from oral aluminum hydroxide commonly given to these patients or from aluminum in dialysis fluid derived from tap water used to prepare the dialysate fluid. Data has been evaluated and found to be inadequate for quantitative risk assessment (EPA, 1991a).

Antimony

The best characterized human health effect associated with the inhalation of antimony is myocardial damage. The suggested no-observed-adverse-effect-level (NOAEL) for antimony induced myocardial damage is 0.003 mg antimony/kg body weight (bw)/day (mg/kg/day). This is based upon studies by Brieger et al. (1954). The chronic oral Reference Dose (RfD) for antimony is 4E-04 mg/kg/day (EPA, 1991), and is based on a chronic rat bioassay (Schroeder et al., 1970). Rats were administered 5 ppm (0.35 mg/kg bw/day) potassium antimony tartrate in drinking water for two years. The critical effects associated with this study are a decrease in longevity, a decrease in fasting blood glucose levels and an alteration in cholesterol levels. An uncertainty factor of 1,000 was applied to the lowest observed adverse effect level (LOAEL) of 0.35 mg/kg bw/day to obtain the RfD. The confidence level in this RfD is low since there was only 1 dose level of antimony used and no observed adverse effect level (NOAEL) was established.

This compound has not been evaluated by the U.S. EPA for evidence of human carcinogenic potential (EPA, 1991).

Arsenic

Symptoms of arsenic intoxication consist of fever, anorexia, hepatomegaly, melanosis, and cardiac arrythmia. Other features include upper respiratory tract symptoms, peripheral neuropathy, and gastrointestinal, cardiovascular and hematopoietic effects. Liver injury is characteristic of longer term or chronic exposure (Goyer, 1986).

The chronic oral RfD is 1E-03 mg/kg/day (EPA, 1991a value pending current review). The critical effects associated with arsenic ingestion are keratosis and hyperpigmentation at a dose of 1 ug/kg/day in humans (Tseng et al., 1977).

The EPA weight of evidence classification for the carcinogenicity of this compound is "A" - a human carcinogen. Exposure to arsenic by the oral route is known to produce skin cancer, while inhalation will cause lung cancer. The slope factors for these carcinogenic effects are 5E-05 ug/l (1.75 mg/kg/day) (Tseng et al., 1977) and 4.3E-03 ug/m^3 (5E+01 mg/kg/day) (Brown and Chu, 1983a, b, c; Lee-Feldstein, 1983; Higgins, 1982; Enterline and Marsh, 1982), respectively (EPA, 1991).

Barium

Symptoms of accidental poisoning from ingestion of soluble barium salts has resulted in gastroenteritis, muscular paralysis, decreased pulse rate, and ventricular fibrillation and extra-systoles (Goyer, 1986).

The chronic oral RfD for barium is 7E-2 mg/kg/day (EPA, 1991) and is based upon drinking water studies in humans (Wones et al., 1990; Brenniman and Levy, 1984) and various rodent studies (Perry et al., 1983; McCauley et al., 1985; Schroder and Mitchner, 1975a, b; Tardiff et al., 1980). Womes et al. (1990) administered barium (as barium chloride) in the drinking water of 0 mg/L for weeks 0-2; 5 mg/L for weeks 3-6; and 10 mg/L for weeks 7-10. A NOAEL of 10 mg/L was identified in this study which corresponds to 0.21 mg/kg/day. An uncertainty factor of 3 was applied to the NOAEL to obtain this RfD. The confidence level in this RfD is medium.

Occupational poisoning to barium is uncommon, but a benign pneumoconiosis (baritosis) may result from inhalation of barium sulfate dust and barium carbonate. It is not incapacitating and is usually reversible with cessation of exposure.

A chronic inhalation RfD for barium has been established as 1E-4 mg/kg/day (EPA, 1991a) on the basis of a chronic inhalation study in rats (Tarasenko et

al., 1977). The LOAEL following barium inhalation was 1.15 mg $BaCO_3/m^3$ (0.80 mg/Ba/m^3) 4 hours/day for 4 months (corresponds to 0.14 mg BA/kg/day). The critical effect observed was fetotoxicity. An uncertainty factor of 1,000 was applied to the LOAEL to obtain the RfD.

Barium has not been evaluated by the U.S. EPA for evidence of human carcinogenic potential (EPA, 1991).

Beryllium

The major toxicologic effects of beryllium are on the lung. It may produce an acute chemical pneumonitis, hypersensitivity or chronic granulomatous pulmonary disease (berylliosis) (Goyer, 1986).

The chronic oral RfD for beryllium is 5E-03 mg/kg/day (EPA, 1991). This value is based upon a study by Schroeder and Mitchner (1975). Beryllium was administered to rats over their lifetime in their drinking water at a concentration of 5 ppm (0.54 mg/kg/day). There were no observed adverse effects. An uncertainty factor of 100 was applied to the NOAEL to obtain the RfD. The confidence level for this RfD is low.

Beryllium compounds have been shown to induce malignant tumors of the lung in rats and monkeys and osteogenic sarcoma in rabbits.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence). The oral slope factor for beryllium is 4.3 $mg/kg/day^{-1}$ (EPA, 1991) and is based on a study by Schroeder and Mitchner (1975). The inhalation slope factor for beryllium is 2.4E-3 ug/m^3 (8.4E+0 mg/kg/day) (EPA, 1991) and is based upon Wagoner et al. (1980).

Cadmium

Ingestion of cadmium results in nausea, vomiting and abdominal pain. Inhalation of cadmium fumes may result in an acute chemical pneumonitis and pulmonary edema (Goyer, 1986).

The chronic oral RfDs for cadmium are 5E-04 mg/kg/day (water) and 1E-03 mg/kg/day (food) (EPA, 1991). The critical effects associated with chronic ingestion of cadmium are proteinuria and renal damage in humans. An uncertainty factor of 10 was applied in order to determine the RfD. The confidence level for this RfD is high.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B1" - a probable human carcinogen (limited human evidence). The inhalation of cadmium has been shown to produce respiratory tract cancers and an inhalation slope factor of 1.8E-03 ug/m^3 (6.3 mg/kg/day) has been established based on Thun et al. (1985) (EPA, 1991). There are no positive studies of orally ingested cadmium suitable for quantitation (EPA, 1991).

Chromium VI

Note: Total chromium only was measured on site. Total chromium was broken down to Cr III and Cr VI based on a 7:1 ratio (7/8 of total chromium is Cr III; 1/8 of total chromium of Cr VI).

The chronic oral Rfd for chromium VI is 5E-03 mg/kg/day (EPA, 1991) and is based upon a study by MacKenzie et al. (1958) in which no adverse effects were observed in rats which received 0-11 mg/l or 25 mg/l chromium in drinking water for 1 year. No adverse effects were seen in humans drinking well water contaminated with 1 mg/l chromium VI for 3 years. An uncertainty factor of 500 was applied to the NOAEL to obtain the RfD. The confidence level in this RfD is low.

The chronic inhalation RfD for chromium VI has been established and verified as 2E-6 mg/m^3 (6E-04 mg/kg/day) (EPA, 1991a). Workgroup concurrence on the final data base file and IRIS input are pending. This value is based upon inhalation exposure in humans (Lindberg and Hedenstierna, 1983). The LOAEL was 0.002 mg/m^3 (as chromic acid) and the critical effect observed was nasal mucosa atrophy. An uncertainty factor of 300 was applied to the LOAEL to obtain the RfD.

The EPA weight of evidence classification for carcinogenicity of this compound by the inhalation route is "A" - a human carcinogen (EPA, 1991). Chromium VI produces lung tumors and an inhalation slope factor of 1.2E-02 ug/m^3 (4.2E+01 mg/kg/day) has been established based upon a study by Mancuso, 1975. There is insufficient evidence for carcinogenicity of this compound by the oral route.

Cobalt

Cobalt is essential as a component of vitamin B12 which is required for the production of red blood cells. Cobalt is well absorbed orally, probably in the small intestine. Excessive cobalt intake is known to result in cardiomyopathy. One ppm cobalt was added to beer to enhance its foaming properties and the resultant signs and symptoms were those of congestive heart failure. Autopsy findings revealed a ten-fold increase in the cardiac levels of cobalt. Occupational exposure may result in respiratory symptoms (Goyer, 1986). No RfDs were found in either Integrated Risk Information Service (IRIS) (EPA, 1991) or Health Effects Assessment Summary Tables (HEAST) (EPA, 1991a).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991a).

Copper

A single dose of 5.3 mg copper resulted in local gastrointestinal tract irritation in humans. A chronic oral RfD is reported as 1.3 mg/l, which is the current drinking water standard for copper (EPA, 1991a). The Drinking Water Criteria Document concluded toxicity data were inadequate for calculating an actual RfD for copper (U.S. EPA, 1987).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Cyanide

The chronic oral RfD for cyanide is 2E-2 mg/kg/day (EPA, 1991) and is based upon a chronic oral feeding study in rats (Howard and Hanzal, 1955) and a subchronic to chronic oral bioassay in rats (Philbrick et al., 1979). The latter study showed decreased weight gain and thyroxin levels and myelin degeneration in rats at 30 mg/kg/day (established as the LOAEL). In the Howard and Hanzal 2 year dietary study (1955), rats were administered food fumigated with cyanide. At doses of 4.3 or 10.8 mg/kg/day, cyanide produced no treatment related effects on growth rate, no gross signs of toxicity and no histopathological lesions. An uncertainty factor of 100 and a modifying factor of 5 were supplied to the NOEL of 10.8 mg/kg/day to obtain the RfD. The confidence level in this RfD is medium.

The chronic inhalation RfD for cyanide is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "D" - not classifiable as a human carcinogen (EPA, 1991).

Iron

The toxic effects of iron overexposure have been examined in terms of accidental acute exposures (children) and chronic iron overload (adults) due to idiopathic hemochromatosis or as a consequence of excess dietary or frequent blood transfusions (Goyer, 1986). The pathological consequences of iron overload include gastrointestinal distress, liver damage, cardiovascular and endocrine disturbances (Jacobs, 1977), and in some cases, death. Health effects data have been evaluated and found to be inadequate for quantitative risk assessment (EPA, 1991a).

Inhalation of iron oxide fumes or dust by workers may result in deposition of iron particles in lungs. An increase in lung cancer, as well as tuberculosis and interstitial fibrosis has been reported in iron ore workers (Boyd et al., 1970). The etiology of the lung cancer is unclear since there are so many concomittant factors involved. Pneumoconiosis has been reported among iron workers exposed to iron levels exceeding 10 mg Fe/m^3. A chronic inhalation RfD is also not available due to an inadequate data base (EPA, 1991a).

Lead

The health effects of lead have been well characterized through decades of medical and scientific observation. Some of these effects include cognitive and motor defects in children, lead induced anemias, increased susceptibility to viral infections and in chronic adult lead poisoning, peripheral neuropathies. It appears that some of these effects particularly the changes in the levels of certain blood enzymes and in aspects of children's neurobehavioral development, may occur at blood lead levels so low as to be essentially without a threshold. Therefore the EPA has considered it inappropriate to develop an RfD for inorganic lead (Goyer, 1986; EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence). Lead has been shown to produce renal tumors (Azar et al., 1973; Kasprzak et al., 1985; Koller et al., 1986; Van Esch and Kroes, 1969), however due to the many uncertainties associated with quantifying lead's cancer risk, it has been recommended that a numerical estimate not be used (EPA, 1991).

Manganese

Exposure to manganese results in two types of toxicities. The first, the result of acute inhalation exposure, results in manganese pneumonitis. The second, and more serious of the two, results from chronic exposure to manganese either by the oral or inhalation routes. Chronic manganese poisoning results in a psychiatric disorder characterized by psychological and motor difficulties (Goyer, 1986). The chronic oral RfD has been set at 1E-01 mg/kg/day (EPA, 1991) in order to prevent the central nervous system effects. This value is based upon studies by WHO (1973), Schroeder et al. (1966) and NRC (1989). The chronic RfD for inhalation is 4E-4 mg/m^3 (1E-04 mg/kg/day) (EPA, 1991) and is based upon a study by Roels et al. (1987). An uncertainty factor of 300 was applied to the LOAEL to obtain the RfD. The confidence level in these RfDs is medium.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991a).

Mercury

Exposure to mercury vapor may produce an acute, corrosive bronchitis and interstitial pneumonitis resulting in either death or symptoms of central

nervous system effects such as tremor or increased excitability. Ingestion of mercuric salts results in corrosive ulceration, bleeding and necrosis of the gastrointestinal tract usually accompanied by shock and circulatory collapse. Renal failure occurs within 24 hours. Chronic mercury poisoning mainly affects the central nervous system. Characteristic symptoms include increased excitability, tremors, gingivitis, and increased salivation. There have been some instances of proteinuria and renal damage in persons chronically exposed to mercury vapors (Goyer, 1986). The chronic oral RfD for mercury is 3E-04 mg/kg/day (EPA, 1991a) (value pending current review), in order to prevent the critical effect of renal damage. This value is based upon the findings of several studies (Druet et al., 1978; Bernaudin et al., 1981; and Andres, 1984). An uncertainty factor of 1,000 was applied in order to determine the RfD.

The chronic RfD value for inhalation for mercury is 3E-4 mg/m^3 (9E-06 mg/kg/day) (value pending current review) (EPA, 1991a) and is based upon several occupational studies (Fawer et al., 1983; Piikivi and Tolonen, 1989; Piikivi and Hanninen, 1989; Piikivi, 1989). Neurotoxicity was the critical effect following inhalation exposure. An uncertainty factor of 30 was applied to obtain the RfD.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Nickel

Nickel is a common allergen which results in allergic contact dermatitis (Goyer, 1986). There are no chronic oral or inhalation RfDs available for nickel refinery dust at this time (EPA, 1991).

The EPA weight of evidence classification for carcinogenicity of this compound by the inhalation route is "A" - a human carcinogen. Nickel produces

lung tumors and an inhalation slope factor of 2.4E-4 ug/m^3 (8.4E-01 mg/kg/day) has been established (EPA, 1991). This value is based on Chovil et al. (1981), Enterline and Marsh (1982), Magnus et al. (1982), and Peto et al. (1983). There is insufficient evidence for carcinogenicity of this compound by the oral route.

Selenium

The availability as well as toxic potential of selenium is related to its chemical form. Selenates are readily absorbed from the gastrointestinal tract whereas elemental selenium is probably not absorbed. Acute selenium poisoning produces central nervous system effects including nervousness, drowsiness and sometimes convulsions. Eye and nasal irritation may occur from exposure to vapors. Signs of chronic selenium intoxication in humans may include discolored or decaying teeth, skin eruptions, gastrointestinal distress, lassitude and partial loss of hair and nails (Goyer, 1986). The chronic oral RfD for selenium is 5E-3 mg/kg/day (EPA, 1991) based upon studies by Yang et al. (1989). The critical effects associated with selenium exposure are chemical selenosis, including CNS abnormalities. An uncertainty factor of 3 was applied to the NOAEL in sensitive individuals to obtain the RfD. The confidence level in this RfD is medium. A chronic inhalation RfD is not available (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991a).

Silver

The major effect of excessive absorption of silver is local or generalized impregnation of the tissues where it remains as silver sulfide, which forms an insoluble complex in elastic fibers resulting in argyria (Goyer, 1986).

The chronic oral RfD for silver is 3E-3 mg/kg/day (value may change pending current review) (EPA, 1991) and is based upon 1-3 year therapeutic treatments with silver in humans. In all studies argyria was the critical effect. In Gaul and Staud (1935), the LOAEL of 1.0 g (total dose) was established. The doses were administered iv over a 2 to 3 year period as silver arsphemamine. Blumberg and Carey (1934) estimated the total dose from a dosing schedule for silver nitrate taken orally for 1 year as 6.4 g. East et al., (1980) estimated the LOAEL to be 7.2 (total oral dose) in a subject who had ingested silver acetate over a period of 2.5 years. From these three studies, the LOAEL was calculated to be 0.0052 mg/kg/day. An uncertainty factor of 2 was applied to obtain the RfD. The confidence level in this RfD is medium.

The chronic inhalation RfD for silver is not available at this time (EPA, 1991).

The EPA weight of evidence classification of the human carcinogenic potential of silver is "D" - not classified as to human carcinogenicity (EPA, 1991).

Thallium

Thallium is one of the more toxic metals and can cause neural, hepatic and renal injury. It may also cause deafness and loss of vision. In some cases, deaths in humans have been reported as a result of long-term systemic thallium intake. These cases usually are caused by the contamination of food or the use of thallium as a depilatory (Browning, 1969; Fowler, 1982). The chronic oral RfD for thallium (soluble salts) is 7E-5 mg/kg/day (EPA, 1991a) and is based on a subchronic feeding study in rats (MRI, 1986). Administration of 0.20 mg thallium/kg/day for 90 days to rats produced increased SGOT levels and

serum LDH levels and alopecia. An uncertainty factor of 3,000 was used to obtain this RfD. A chronic inhalation RfD for thallium is not available at this time (EPA, 1991a).

Vanadium

Vanadium is an ubiquitous element. Industrial exposure to vanadium may lead to bronchitis and bronchopneumonia. Vanadium overexposure may also cause skin and eye irritation, gastrointestinal distress, nausea, vomiting, abdominal pain, cardiac palpitation, tremor, nervous depression and kidney damage (Goyer, 1986). Ingestion of vanadium compounds may produce gastrointestinal disturbances, slight abnormalities of clinical chemistry related to renal function and nervous system effects. The chronic oral RfD for vanadium is 7E-3 mg/kg/day (under review by RfD/RfC Work Group) (EPA, 1991a) and is based on a chronic drinking water study in rats (Schroeder et al., 1970). No critical effects were observed in the rat following administration of 5 ppm vanadium from vanadyl sulfate in drinking water for lifetime (converted to 0.7 mg/kg/day). An uncertainty factor of 100 was applied to the NOEL to obtain this RfD.

Short term inhalation exposure to high levels of vanadium has been shown to produce toxic effects in the lung, kidney, liver, adrenals and bone marrow in experimental animals (Waters, 1977). A chronic inhalation RfD for vanadium is not available at this time (EPA, 1991a).

Zinc

Zinc is ubiquitous in the environment so that it is present in most food stuffs, water and air. About 20 to 30 percent of ingested zinc is absorbed. Acute toxicity from the ingestion of excessive zinc is uncommon (Goyer,

1986). The chronic oral RfD for zinc is 2E-01 mg/kg/day (EPA, 1991a) (value pending current review). This value is based on a therapeutic dosage of 2.14 mg/kg/day in man which resulted in anemia (Pories et al., 1967; Prasad et al., 1975). An uncertainty factor of 10 was applied to obtain the RfD.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

F.2 Volatiles

1,1-Dichloroethane

The chronic oral RfD for 1,1-dichloroethane is 1E-1 mg/kg/day (EPA, 1991a) (currently under review by an EPA Work Group) and is based on route-to-route extrapolation of data from an inhalation study (Hofmann et al., 1971). No adverse effects were observed when rats were exposed to 1,1-dichloroethane at 500 ppm (2,025 mg/m^3), 6 hours/day, 5 days/week for 13 weeks. An uncertainty factor of 1,000 was applied to obtain the RfD.

The chronic inhalation RfD for this compound is 1E-1 mg/kg/day (EPA, 1991a) (currently under review by an EPA Work Group) and is based on the development of kidney damage in cats exposed to 1,1-dichloroethane under the same conditions described above (Hoffman et al., 1971). An uncertainty factor of 1,000 was applied to obtain this RfD.

The EPA weight of evidence classification for the human carcinogenicity of this compound is "C" - possible human carcinogen (EPA, 1991) based on an increased incidence of mammary gland adenocarcinomas and hemangiosarcomas in female rats and an increased incidence of hepatocellular carcinomas and benign uterine polyps in mice (NCI, 1978). Based upon this limited evidence, no quantitative estimate of carcinogenic risk from oral or inhalation exposure is available.

1,1-Dichloroethene

The chronic oral RfD for 1,1-dichloroethene is 9E-3 mg/kg/day (EPA, 1991) and is based upon a chronic rat study (Quast et al., 1983). Sprague-Dawley rats received 1,1-dichloroethene in drinking water at a concentration of 50, 100 or 200 ppm for a period of 2 years. The LOAEL was 50 ppm (calculated to be 9 mg/kg/day in females) and the critical effects observed were hepatic lesions, generally characterized by minimal mid-zonal hepatocellular fatty change and swelling. An uncertainty factor of 1,000 was applied to the LOAEL to obtain the RfD. The confidence level in this RfD is medium. A chronic inhalation RfD has not been established and a risk assessment for 1,1-dichloroethene is under review by an EPA work group.

The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - possible human carcinogen (inadequate human data, limited animal evidence) (EPA, 1991). A significant increase in kidney adenocarcinoma was observed in the male Swiss mouse following inhalation exposure to 10 or 25 ppm for 4-5 days/week for 12 months (Maltoni et al., 1977, 1985). Based upon these studies an inhalation unit risk factor of 5.0E-2 ug/m^3 (1.8E-01 mg/kg/day) has been established (EPA, 1991). An oral slope factor of 6E-1 mg/kg/day has been estimated (EPA, 1991a) based upon a two year gavage study in Fischer 344 rats (NTP, 1982). A significant increase in adrenal pheochromocytomas was observed in male mice following exposure to 1,1-dichloroethene.

1,1,1-Trichloroethane

The chronic oral RfD for 1,1,1-trichloroethane is 9E-2 mg/kg/day (EPA, 1991) (value pending current review) and is based upon two inhalation studies in guinea pigs. Torkelson et al. (1958) exposed guinea pigs to 1,1,1-trichloroethane at concentrations of 500, 1,000, 2,000 or 10,000 ppm.

The NOAEL was 500 ppm (converted to 90 mg/kg/day) after exposure for 7 hours/day, 5 days/week for 6 months. Adams et al. (1950) exposed guinea pigs to 1,1,1-trichloroethane at a concentration of 650 ppm (converted to 120 mg/kg/day) for 7 hours/day, 5 days/week for 2-3 months. These animals exhibited slight growth retardation, thereby establishing to LOAEL of 650 ppm in guinea pigs. An uncertainty factor of 1,000 was applied to the NOAEL of 90 mg/kg/day to obtain the RfD. The confidence level in this RfD is medium to low.

The chronic inhalation RfD for 1,1,1-trichloroethane has been established at 3E-1 mg/kg/day (currently pending review by an EPA Work Group) (EPA, 1991a), on the basis of the inhalation study in guinea pigs mentioned above (Torkelson et al., 1958).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

1,1,2-Trichloroethane

The chronic oral RfD for 1,1,2-trichloroethane is 4E-3 mg/kg/day (EPA, 1991) and is based upon two subchronic drinking water studies in mice (White et al., 1985; Sanders et al., 1985). Mice were exposed to 1,1,2-trichloroethane in drinking water at concentrations of 0, 20, 200 or 2000 mg/L for 90 days. Clinical chemistry indications of adverse effects on the liver occurred in both sexes at 2000 mg/L and depressed humoral immune status occurred in both sexes at 200 and 2000 mg/L. An uncertainty factor of 1,000 was applied to the NOAEL of 3.9 mg/kg/day (corresponding to 20 mg/L for female mice) to obtain the RfD. The confidence level in this RfD is medium. A risk assessment to establish a chronic inhalation RfD for 1,1,2-Trichloroethane is under review by an EPA work group (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - possible human carcinogen (inadequate human data, limited animal evidence). 1,1,2-Trichloroethane has been shown to produce hepatocellular carcinomas and pheochromocytomas in B6C3F1 mice when administered by gavage at doses of 150-400 mg/kg/day for 5 days/week for 78 weeks (NCI, 1978). An oral slope factor of 5.7E-2 mg/kg/day and an inhalation unit risk factor of 1.6E-5 ug/m^3 (5.7E-02 mg/kg/day) have been established (EPA, 1991) based upon this study (NCI, 1978).

1,1,2,2-Tetrachloroethane

Chronic oral RfD assessment is pending by EPA workgroup (EPA, 1991). Chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - possible human carcinogen (inadequate human data, limited animal evidence). 1,1,2,2-Tetrachloroethane has been shown to produce hepatocellular carcinomas in mice treated by gavage (NCI, 1978). An oral slope factor of 2.0E-1 mg/kg/day and an inhalation unit risk factor of 5.8E-5 ug/m^3 (2.0E-01 mg/kg/day) have been established (EPA, 1991) based upon the NCI study (1978).

1,2-Dichloroethane

No RfD was found in IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991a). 1,2-Dichloroethane has been shown to produce several tumor types in rats and mice treated by gavage (NCI, 1978) and lung papillomas in mice after topical application (van Duuren et al.,

1979). An oral slope factor of 9.1E-2 mg/kg/day and an inhalation unit risk factor of 2.6E-5 ug/m^3 (9.1E-02) have been established (EPA, 1991) based upon the NCI studies (1978).

1,2-Dichloroethene

The chronic oral RfD for 1,2-dichloroethene is 1E-2 mg/kg/day (verified; workgroup concurrence on final data base and IRIS input pending) and is based on a 90 day rat gavage study (EPA, 1991a). The LOAEL was 32 mg/kg/day and the critical effects observed were decreased hematocrit and hemoglobin. An uncertainty factor of 3000 was applied to the LOAEL to obtain the RfD. A chronic inhalation RfD for 1,2-dichloroethene is not available at this time (EPA, 1991a).

The EPA weight of evidence classification for the carcinogenicity of this compound was not found.

1,2-Dichloropropane

Data is inadequate for quantitative risk assessment and, therefore, no RfDs were found in IRIS or HEAST (EPA, 1991).

The evidence for human carcinogenic potential of this compound is currently under review by a CRAVE Workgroup. While this value may change pending the current review, the oral slope factor had previously been established at 6.8E-2 mg/kg/day on the basis of a mouse gavage study (U.S. EPA, 1985; NTP, 1986). Liver tumors had been induced following 1,2-dichloropropane administration. An inhalation slope factor is not available at this time (EPA, 1991a). The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen.

1,3-Dichloropropene (cis and trans)

The chronic oral RfD for 1,3-dichloropropene is 3E-4 mg/kg/day (EPA, 1991) and is based on a subchronic feeding study in rats (Dow Chemical, 1973). Solutions of 1,3-dichloropropene in proplylene glycol were administered to rats/sex/dose at 1, 3, 10 or 30 mg/kg/day for 90 days. The LOEL was 10 mg/kg/day and the critical effect observed was increased kidney weight. An uncertainty factor of 10,000 was applied to the NOEL of 3 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The chronic inhalation RfD for 1,3-dichloropropene is 2E-2 mg/m^3 (6E-03 mg/kg/day) (EPA, 1991) and is based on a chronic inhalation study in mice (Lomax et al., 1989). B6C3F1 mice were exposed to 0, 5, 20 or 60 ppm 1,3-dichloropropene, 6 hours/day, 5 days/week for 2 years. The LOAEL was 20 ppm (converted to 83.5 mg/m^3) and the critical effects observed were hypertrophy and hyperplasia of the nasal respiratory epithelium. An uncertainty factor of 30 was applied to the NOAEL of 5 ppm (converted to 20.9 mg/m^3) to obtain the RfD. The confidence level in this RfD is high.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen. Exposure to 1,3-dichloropropene has been shown to produce tumors in F344 rats (forestomach, adrenal and thyroid tumors, and liver modules) and B6C3F1 mice (forestomach, urinary bladder and lung tumors) (NTP, 1985; Lomax et al., 1989). An oral slope factor of 1.8E-1 mg/kg/day (not yet verified) (EPA, 1991a) has been established based on a 104-week gavage study in rats showing forestomach, liver, adrenal and thyroid tumors (NTP, 1985). An inhalation slope factor of 1.3E-1 mg/kg/day (not yet verified) (EPA, 1991a) has been established based on a 2-year inhalation study in mice showing benign lung tumors (Lomax et al., 1989). The human data on 1,3-dichloropropene consists of a report of three

cases of cancer (two non-Hodgkins lymphomas and an acute myelomonocytic leukemia) (U.S. EPA, 1985a).

2-Hexanone

Data has been determined to be inadequate for quantitative risk assessment (EPA, 1991a).

The EPA weight of evidence classification for the carcinogenicity of this compound was not found (EPA, 1991, 1991a).

2-Butanone

The chronic oral RfD for 2-butanone has been estimated at 5E-2 mg/kg/day (value may change pending current review) (EPA, 1991) and is based upon route to route extrapolation of a subchronic inhalation study in rats (LaBelle and Briegen, 1955). Rats were exposed to 235 ppm of methyl ethyl ketone for 7 hours/day, 5 days/week for 12 weeks. No effects were observed, but only a few parameters were measured. A NOAEL for methyl ethyl ketone was estimated at 130.5 mg/kg/day in a developmental toxicity study in rats (Schwetz et al., 1974). Fetotoxicity was the critical effect. This observed LOAEL was higher than the NOAEL of LaBelle and Brieger (1955) (235 ppm converted to 46 mg/kg/day). An uncertainty factor of 1,000 was applied to this NOAEL to obtain the RfD. The confidence level in this RfD is medium.

While currently under review by an EPA Work Group and, therefore, subject to future change (EPA, 1991a), the chronic inhalation RfD was previously established at 9E-2 mg/kg/day based upon the LaBelle and Brieger study (1955). An uncertainty factor of 1,000 was applied to the LOAEL of 92 mg/kg/day to obtain this RfD. CNS toxicity was the critical effect.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

4-Methyl-2-Pentanone

The chronic oral RfD for this compound has been withdrawn pending further review by the RfD/RfC Work Group (EPA, 1991). The value had previously been established at 5E-2 mg/kg/day (EPA, 1991a) based upon a chronic gavage study in rats (Microbiological Associates, 1986). Rats were given 4-methyl-2-pentanone by gavage for 13 weeks. At a dose of 50 mg/kg/day liver and kidney toxicity was observed. An uncertainty factor of 1,000 was applied to the LOAEL to obtain this RfD.

The chronic inhalation RfD for this compound is also currently under review by an EPA Work Group (EPA, 1991). This value had previously been set at 2E-2 mg/kg/day (EPA, 1991a) and is based upon a chronic inhalation study in rats (Union Carbide Corp., 1983). Rats were exposed to methyl isobutyl ketone for 6 hours/day, 5 days/week for 90 days. At the LOAEL of 23.3 mg/kg/day, liver and kidney toxicity was observed. An uncertainty factor of 1,000 was applied to the LOAEL to obtain this RfD.

This compound has not been evaluated by the U.S. EPA for evidence of human carcinogenic potential (EPA, 1991).

Acetone

The chronic oral RfD for acetone is 1E-1 mg/kg/day (EPA, 1991) and is based on a subchronic oral study in rats (U.S. EPA, 1986). Acetone was administered by gavage for 90 days to groups of albino rats of 0, 100, 500 or 2,500 mg/kg/day. The LOAEL was 500 mg/kg/day and the critical effects were increased liver and kidney weights and nephrotoxicity. An uncertainty factor

of 1,000 was applied to the NOEL of 100 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The chronic inhalation RfD for acetone is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Benzene

The chronic oral and inhalation RfDs for benzene have not been established and are pending review by an EPA work group (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "A" - human carcinogen. Several studies have shown benzene to increase the incidence of nonlymphocytic leukemia in humans from occupational exposure (Rinsky et al., 1981; Ott et al., 1978; Wong et al., 1983). An oral slope factor of 2.9E-2 mg/kg/day and an inhalation unit risk factor of 8.3E-6 ug/m^3 (2.9E-02 mg/kg/day) have been established (EPA, 1991) based upon these studies.

Bromodichloromethane

The chronic oral RfD for bromodichloromethane is 2E-2 mg/kg/day (EPA, 1991) and is based on a chronic gavage study in mice (NTP, 1986). Male mice received bromodichloromethane by gavage, 5 days/week for 102 weeks, at doses of 0, 25, or 50 mg/kg/day. The LOAEL was 17.9 mg/kg/day (adjusted for 25 mg/kg/day x 5 days/7 days) and the critical effects observed were renal cytomegaly, as well as fatty metamorphosis of the liver and follicular cell hyperplasia of the thyroid gland. An uncertainty factor of 1,000 was applied to the LOAEL to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of bromodichloromethane is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). This compound has been shown to produce increased incidence by kidney tumors and tumors of the large intestine in male and female rats, kidney tumors in male mice and liver tumors in female mice (NTP, 1987), and an oral slope factor of 1.3E-1 mg/kg/day has been established (EPA, 1990). A quantitative estimate of carcinogenic risk from inhalation exposure to this compound is not available (EPA, 1991).

Bromoform

The chronic oral RfD for bromoform is 2E-2 mg/kg/day (EPA, 1991) and is based on a subchronic gavage study in rats (NTP, 1989). F344/N rats were gavaged with 0, 12, 25, 50, 100 or 200 mg/kg bromoform 5 days/week for 13 weeks. The LOAEL was 50 mg/kg/day (converted to 35.7 mg/kg/day based upon 5/7 days) and the critical effect observed was hepatic lesions in male rats. The NOEL was 25 mg/kg/day (converted to 17.9 mg/kg/day based upon 5/7 days). An uncertainty factor of 1,000 was applied to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD for bromoform is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). Bromoform has been shown to produce an increased incidence of tumors (neoplastic lesions in large intestine) after oral administration in rats (NTP, 1988) and after intraperitoneal administration in mice (Theiss et al., 1977). An oral slope factor of 7.9E-3 mg/kg/day and an inhalation unit risk factor of 1.1E-6 ug/m^3

(3.9E-03 mg/kg/day) have been established (EPA, 1991) based upon data from NTP, 1988.

Carbon Disulfide

Adverse effects of human exposure to carbon disulfide resulting from prolonged exposure to high levels of carbon disulfide include organic brain damage, peripheral nervous system decrements, neurobehavioral dysfunction and ocular and auditory effects. Adverse effects on the cardiovascular system have also been reported (Goyer, 1986).

The chronic oral RfD for carbon disulfide is 1E-1 mg/kg/day (EPA, 1991) (may change pending current review). This value is based on route-to-route extrapolation of data from a rabbit inhalation study (Hardin et al., 1981). Rabbits were exposed to 20 ppm or 40 ppm of carbon disulfide for 34 weeks prior to breeding and during the entire length of the pregnancy period. The NOEL for this study was 40 ppm (converted to 22.0 mg/kg/day), but this value should not be used to estimate an RfD since Jones-Price et al. (1984a, b) found adverse effects in rabbit fetuses (malformations) following oral exposure of pregnant doses to 25 mg/kg. As a result, 11 mg/kg has been used as the most appropriate basis for an RfD derivation. An uncertainty factor of 100 was applied to the NOEL to obtain the RfD. The confidence level in this RfD is medium.

The chronic inhalation RfD for carbon disulfide is 1E-2 mg/m^3 (3E-03 mg/kg/day) (EPA, 1991a; verified; Workgroup concurrence on final data base file and IRIS input pending) and is based upon an inhalation study in rats (Tabacova et al., 1978, 1983). Rats were exposed to carbon disulfide at different concentrations for 8 hours/day during gestation. The NOAEL was 10 mg/m^3 and the critical effect was fetal toxicity. An uncertainty factor of 1,000 was applied to obtain the RfD.

Carbon disulfide has not been evaluated by the U.S. EPA for evidence of human carcinogenic potential.

Carbon Tetrachloride

The chronic oral RfD for carbon tetrachloride is 7E-4 mg/kg/day (EPA, 1991) and is based upon a 12 week rat study (Bruckner et al., 1986). Rats were given carbon tetrachloride by gavage at doses of 1, 10 or 33 mg/kg/day, 5 days/week for 12 weeks. The LOAEL was 10 mg/kg/day (converted to 7.1 mg/kg/day) and the critical effects observed were hepatic lesions and increases in serum sorbitol dehydrogenase activity. An uncertainty factor of 1,000 was applied to the NOAEL of 1 mg/kg/day (converted to 0.71 mg/kg/day to take into account 5/7 days) to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD for carbon tetrachloride is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). Carbon tetrachloride has been shown to produce hepatocellular carcinomas in rats (NCI, 1976a, b, 1977), mice (NCI, 1976a, b, 1977, and Edwards, 1942) and hamsters (Della Porta et al., 1961). An oral slope factor of 1.3E-1 mg/kg/day and an inhalation unit risk factor of 1.5E-5 ug/m^3 (1.3E-01 mg/kg/day) have been established (EPA, 1991) based upon these studies.

Chlorobenzene

The chronic oral RfD for chlorobenzene is 2E-02 mg/kg/day (EPA, 1991) and is based on a 13 week dog study (Monsanto Co., 1967; Knapp et al., 1971). Beagle dogs received chlorobenzene orally by capsule at doses of 27.25, 54.5,

or 272.5 mg/kg/day for 5 days/week for 13 weeks. The LOAEL was 54.5 mg/kg/day and the critical effects observed were histopathological changes in the liver as well as changes in the blood chemistry. An uncertainty factor of 1,000 was applied to the NOAEL of 19 mg/kg/day (adjusted from 27.25 mg/kg/day to take into account X exposure) to obtain the RfD. The confidence level in this RfD is medium.

The chronic inhalation RfD for chlorobenzene is 5E-3 mg/kg/day (pending review) (EPA, 1991a) and is based upon a chronic study in rats (Dilley, 1977). Rats were exposed to chlorobenzene at doses of 75 ppm for 7 hours/day, 5 days/week for 120 days. An uncertainty factor of 10,000 was applied to obtain the RfD. The critical effects observed were liver and kidney effects.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Chloromethane

No RfDs were found in IRIS or HEAST.

Route-to-route extrapolation was used to establish an oral slope factor of 1.3E-2 mg/kg/day. An inhalation slope factor of 6.3E-3 mg/kg/day has been established for chloromethane (EPA, 1991a). These values are based on a 24-month inhalation study in mice where kidney tumors were induced following chloromethane (CIIT, 1981). The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - possible human carcinogen (inadequate human data, limited animal evidence) (EPA, 1991).

Chloroform

The chronic oral RfD for chloroform is 1E-2 mg/kg/day (EPA, 1991) and is based upon a chronic dog study (Heywood et al., 1979). Beagle dogs received

chloroform orally in a toothpaste base by capsule at a dose of 15 or 30 mg/kg/day for 6 days/week for 7.5 years. The LOAEL was 15 mg/kg/day (converted to 12.9 mg/kg/day) and the critical effects observed were fatty cyst formation in the liver and an increase in serum SGPT and SGOT levels. An uncertainty factor of 1,000 was applied to the LOAEL to obtain the RfD. The confidence level in this RfD is medium.

A risk assessment to establish a chronic inhalation RfD for chloroform is under review by an EPA work group (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). Chloroform has been shown to produce kidney and/or hepatocellular tumors in rats, mice and beagle dogs (NCI, 1976; Jorgensen et al., 1985). An oral slope factor of 6.1E-3 mg/kg/day has been established (EPA, 1991) based upon the study by Jorgensen et al., 1985. An inhalation unit risk factor of 2.3E-5 ug/m^3 (8.1E-02 mg/kg/day) was established (EPA, 1991) based upon the NCI, 1976 study.

Dibromochloromethane

The chronic oral RfD for dibromochloromethane is 2E-2 mg/kg/day (EPA, 1991) and is based upon a subchronic gavage study in rats (NTP, 1985). Rats received dibromochloromethane orally by gavage at doses of 0, 15, 30, 60, 125 or 250 mg/kg/day for 5 days/week for 13 weeks. The LOAEL was 60 mg/kg/day (converted to 42.9 mg/kg/day) and the critical effects observed were hepatic lesions. The NOEL was 30 mg/kg/day (converted to 21.4 mg/kg/day) and an uncertainty factor of 1,000 was applied to the NOEL to obtain the RfD. The confidence level in this RfD is medium. A chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - possible human carcinogen (inadequate human data, limited animal evidence) (EPA, 1990). Dibromochloromethane has been shown to produce hepatocullular adenomas and carcinomas in female B6C3F1 mice when given by gavage, with equivocal findings in male mice and no evidence of carcinogenicity in F344/N rats (NTP, 1985). Based upon these results, an oral slope factor of 8.4E-2 mg/kg/day has been established (EPA, 1991). A quantitative estimate of carcinogenic risk from inhalation exposure is not available at this time (EPA, 1991).

Ethylbenzene

The chronic oral RfD for ethylbenzene is 1E-01 mg/kg/day (EPA, 1991) and is based on a oral subchronic rat bioassay (Wolf et al., 1956). Rats received oral doses of 13.6, 136, 408, or 680 mg/kg/day in olive oil for 26 weeks. The LOAEL was 408 mg/kg/day and the critical effects observed were liver and kidney toxicity. An uncertainty factor of 1,000 was applied to the NOAEL of 97.1 mg/kg/day (adjusted from 136 mg/kg/day to take into account 5/7 day exposure) to obtain the RfD. The confidence level in this RfD is low. There were no adverse effects seen in human volunteers exposed to 100 ppm (435 mg/cu.m) for eight hours.

The chronic inhalation RfD has been established and verified as 3E-01 mg/kg/day (1E+0 mg/m^3) (EPA, 1991) and is based upon inhalation studies in rats and rabbits (Andrew et al., 1981; Hardin et al., 1981). Rats were exposed to ethylbenzene on gestation days 1-19 and rabbits were exposed on gestation days 1-24. Exposures were for 6-7 hours/day. The NOAEL was 434 mg/m^3 and the critical effect observed was developmental toxicity. An uncertainty factor of 300 was applied to the NOAEL. The confidence level in this RfD is low.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Methylene Chloride

The chronic oral RfD for methylene chloride is 6E-2 mg/kg/day (EPA, 1991) and is based on a drinking water bioassay in rats (National Coffee Association, 1982). Rats were given methylene chloride at doses of 5, 50, 125 or 250 mg/kg/day in drinking water for 2 years. The LOAEL was 52.58 and 58.32 mg/kg/day for males and females, respectively and the critical effect was liver toxicity. The NOAEL was 5.85 and 6.47 mg/kg/day for males and females, respectively and an uncertainty factor of 100 was applied to this NOAEL to obtain the RfD. The confidence level in this RfD is medium.

The chronic inhalation RfD for methylene chloride is 3E+0 mg/m^3 (9E-01 mg/kg/day) (work group concurrence on final data base file and IRIS input pending) (EPA, 1991a). This value is based upon a chronic inhalation study in rats (Nitschke et al., 1988). Rats were exposed to methylene chloride 6 hours/day, 5 days/week for 2 years. The NOAEL was 694.8 mg/m^3 and an uncertainty factor of 100 was applied to obtain the RfD.

The EPA weight of evidence classification for human carcinogenicity is "B2" - probable human carcinogen. Methylene chloride has been shown to induce increased incidence of hepatocellular neoplasms and alveolar/bronchiolar neoplasms in male and female mice, and increased incidence of benign mammary tumors in both sexes of rats, salivary gland sarcomas in male rats and leukemia in female rats. An oral slope factor of 7.5E-3 mg/kg/day (EPA, 1991) calculated as the arithmetic mean of slope factors derived from an inhalation study (NTP, 1986) and an oral/drinking water study (NCA, 1983) has been established. An inhalation unit risk factor of 4.7E-7 ug/m^3 (1.6E-03

mg/kg/day) (EPA, 1991) has been established based upon the induction of adenomas and carcinomas (liver and lung) in mice following inhalation exposure (NTP, 1986).

Styrene

The chronic oral RfD for styrene is 2E-1 mg/kg/day (EPA, 1991) and is based upon a subchronic oral study in dogs (Quast et al., 1979). Beagle dogs received styrene by oral intubation at doses of 0, 200, 400 or 600 mg/kg/day for 560 days. The LOAEL was 400 mg/kg/day and the critical effects observed were red blood cell and liver effects (decreased packed cell volume, increased numbers of Heinz bodies in the RBCs, decreases in hemoglobin and RBC counts, increased iron deposits and Heinz bodies in liver). An uncertainty factor of 1,000 was applied to the NOAEL of 200 mg/kg/day to obtain the RfD. The confidence level in this RfD is medium.

A risk assessment to determine the chronic inhalation RfD for styrene is under review by an EPA work group (EPA, 1991). The evidence of human carcinogenic potential of this compound is currently under review by a CRAVE Workgroup. While this value may change pending the current review, the oral slope factor had previously been established at 3.0E-2 mg/kg/day (EPA, 1991a) on the basis of a mouse gavage study (NCI, 1979). Styrene administration produced lung and bronchi tumors. The inhalation slope factor had previously been established at 2.0E-3 mg/kg/day (1991a) on the basis of a 20 month inhalation study in rats (Jersey et al., 1978). The critical effect observed was leukemia following styrene exposure. This value is also pending review. The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen.

Tetrachloroethene

The chronic oral RfD for tetrachloroethene is 1E-2 mg/kg/day (EPA, 1991) and is based upon a gavage study in mice (Buben and O'Flaherty, 1985). Swiss-Cox mice were exposed to tetrachloroethene by gavage at doses of 0, 20, 100, 200, 500, 1500, and 2000 mg/kg/day, 5 days/week for 6 weeks. The LOAEL was 100 mg/kg/day (converted to 71 mg/kg/day) and the critical effects observed were increased liver triglycerides and increased liver weight/body weight ratios. An uncertainty factor of 1,000 was applied to the NOAEL of 20 mg/kg/day (converted to 14 mg/kg/day) to obtain the oral RfD. The confidence level in this RfD is medium. A chronic inhalation RfD for tetrachloroethene is not available at this time (EPA, 1991, 1991a).

The evidence of human carcinogenic potential of this compound is currently under review by a CRAVE Workgroup. While this value may change pending the current review, the oral slope factor had previously been established at 5.1E-2 mg/kg/day on the basis of a mouse gavage study (NCI, 1977). Liver tumors were induced following tetrachloroethene administration. The inhalation slope factor has been established at 5.2E-7 ug/m^3 (1.8E-03 mg/kg/day) (currently pending review) (EPA, 1991a) and is based upon an inhalation study in rats and mice. Leukemia and liver lesions were observed following tetrachloroethene exposure (NTP, 1986). The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen.

Toluene

The chronic oral RfD for toluene is 2E-01 mg/kg/day (EPA, 1991) and is based on a subchronic oral gavage study in rats (NTP, 1989). F344 rats received oral doses of 0, 312, 625, 1250, 2500, or 5000 mg/kg/day for 5

days/week for 13 weeks. The LOAEL was 625 mg/kg/day and the critical effects observed were changes in liver and kidney weights. An uncertainty factor of 1,000 was applied to the NOAEL of 223 mg/kg/day (adjusted from 312 mg/kg/day to take into account 5/7 day exposure) to obtain the RfD. The confidence level in this RfD is medium. There were no adverse effects seen in human volunteers exposed to 100 ppm for twenty minutes. When exposed to 200 ppm for twenty minutes they exhibited incoordination, exhilaration, and prolonged reaction times.

The chronic inhalation RfD for toluene is 6E-01 mg/kg/day (2E+0 mg/m^3) (EPA, 1991a) and is based upon human exposure data (Anderson et al., 1983; CIIT, 1980). This value is currently under review by an EPA work group (EPA, 1991). Humans were exposed to toluene at a concentration of 40 ppm for 6 hours and the critical effects observed were CNS effects and eyes and nose irritation. An uncertainty factor of 100 was applied to the NOAEL of 151 mg/m^3 to obtain this RfD.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Trichloroethene

A risk assessment for this chemical is under review by an EPA work group. Oral and inhalation RfDs have not been established (EPA, 1991).

The evidence of human carcinogenic potential of this compound is currently under review by a CRAVE Workgroup. The previously established oral slope factor value of 1.1E-2 mg/kg/day, based upon a mouse gavage study (liver tumors; NCI, 1976; NTP, 1983), has been removed from IRIS pending further review. New, verified values are pending input into IRIS. The previously established inhalation slope factor of 1.7E-2 mg/kg/day (EPA, 1991a) has also

been removed from IRIS pending further review. It is based upon two inhalation studies in mice (Maltoni et al., 1986; Fukuda et al., 1983). Lung tumors were induced. The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen.

Vinyl Chloride

No RfD was found in IRIS or HEAST.

The evidence for human carcinogenic potential of this compound has recently been under review by a CRAVE Workshop. While the oral slope factor has been established and verified as 1.9E+0, the workgroup concurrence on the final data file and IRIS input are pending (EPA, 1991a). This value is based upon the induction of lung tumors in rats in a dietary study (10-50 ppm; Feron et al., 1981). The inhalation slope factor has been established and verified as 8.4E-5 ug/m^3 (3E-01 mg/kg/day) (EPA, 1991a), and the workgroup concurrence on the final data file and IRIS input are pending. This value is based upon the induction of liver tumors in a 1 year inhalation study in rats (Maltoni et al., 1980, 1981). The EPA weight of evidence classification for the carcinogenicity of this compound in "A" - human carcinogen.

Xylenes

The chronic oral RfD for toluene is 2E+00 mg/kg/day (EPA, 1991) and is based on a chronic oral gavage study in rats and mice (NTP, 1986). Rats and mice were given oral gavage doses of 0, 250 or 500 mg/kg/d (rats) and 0, 500 or 1,000 mg/kg/d (mice) for 5 days/week for 105 weeks. There was a dose-related increase in the mortality levels seen in male rats, as well as hyperactivity and decreased body weights. An uncertainty factor of 100 was applied to the NOAEL of 179 mg/kg/day (adjusted from 250 mg/kg/day to take

into account 5/7 day exposure) to obtain the RfD. The confidence level in this RfD is medium.

The chronic inhalation RfD for xylene is 3E-1 ug/m^3 (9E-02 mg/kg/day) (EPA, 1991a) and is based upon human exposure data (Hake et al., 1981; Carpenter et al., 1975). This value is currently pending review (EPA, 1991). Humans were exposed to xylenes at a concentration of 20 ppm for 7.5 hours/day for 5 days and the critical effects observed were CNS effects and nose and throat irritation. An uncertainty factor of 100 was applied to the NOAEL of 27 mg/m^3 to obtain this RfD.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

F.3 Semi-Volatiles

1,3-Dichlorobenzene

Data has been evaluated and found to be inadequate for quantitative risk assessment, therefore, no chronic oral or inhalation RfDs are available (EPA, 1991a).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

1,4-Dichlorobenzene

No oral RfD was found in either IRIS or HEAST.

The chronic inhalation RfD for 1,4-dichlorobenzene has been verified as 7E-1 mg/m^3 (EPA, 1991a). Workgroup concurrence on the final data base file and IRIS input are pending. The value is based upon an inhalation study in rats (Riley et al., 1980). Rats were exposed to 1,4-dichlorobenzene at a concentration of 75 ppm (454.6 mg/m^3) for 5 hours/day, 5 days/week for 76

weeks. The critical effects observed were liver and kidney changes. An uncertainty factor of 100 was applied to obtain the RfD.

The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - a possible human carcinogen (limited animal evidence, inadequate/no human evidence). The oral slope factor for 1,4-dichlorobenzene is 2.4E-02 $mg/kg/day^{-1}$ (EPA, 1991a). In a 103 week oral gavage study in mice 1,4-dichlorobenzene produced liver tumors (NTP, 1986; Federal Register, 1987). An inhalation slope factor for 1,4-dichlorobenzene is not available (EPA, 1991a).

2-Methylnaphthalene

No RfDs were found in IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is not available (EPA, 1991a).

2,4-Dichlorophenol

The chronic oral RfD for 2,4-dichlorophenol is 3E-3 mg/kg/day (EPA, 1991) and is based upon a subchronic to chronic drinking water study in rats (Exon and Koller, 1985). Female rats were exposed to 3, 30 or 300 ppm 2,4-dichlorophenol in drinking water from weaning age through breeding at 90 days, parturition and weaning of pups. The LOAEL was 30 ppm (converted to 3 mg/kg/day) and the critical effects were decreased delayed hypersensitivity response. The NOEL was 3 ppm (converted to 0.3 mg/kg/day). An UF of 100 was applied to the NOEL to obtain the RfD. The confidence level in this RfD is low.

The chronic inhalation RfD for 2,4-dichlorophenol is not available at this time (EPA, 1991).

This chemical has not been evaluated by the U.S. EPA for evidence of human carcinogenic potential (EPA, 1991).

2,4-Dinitrophenol

The chronic oral RfD for 2,4-dinitrophenol is 2E-3 mg/kg/day (value may change pending current review) (EPA, 1991) and is based upon anecdotal data from chronic and subchronic human exposure (Horner, 1942). Cataracts have been observed in patients receiving as little as 2 mg/kg/day, the lower range of the recommended therapeutic dose. An uncertainty factor of 1,000 was applied to the LOAEL to obtain the RfD. The confidence level in this RfD is low.

A risk assessment to determine the chronic inhalation RfD for this compound is under review by an EPA Work Group (EPA, 1991).

This compound has not been evaluated by the U.S. EPA for evidence of human carcinogenic potential (EPA, 1991).

2,4-Dinitrotoluene

The health effects data for 2,4-dinitrotoluene were reviewed by the U.S. EPA RfD/RfC Work Group and determined to be inadequate for derivation of an RfD (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "B2" (EPA, 1991). A mixture of 2,4- and 2,6-dinitrotoluene isomers has been shown to induce liver and mammary gland tumors in a 2 year dietary study in rats (Ellis et al., 1979). An oral slope factor of 6.8E-1 mg/kg/day has been established based on this study. Quantitative estimate of carcinogenic risk from inhalation exposure to 2,4-dinitrotoluene is not available (EPA, 1991).

2,4,5-Trichlorophenol

The chronic oral RfD for 2,4,5-trichlorophenol is 1E-1 mg/kg/day (EPA, 1991) and is based upon a subchronic dietary rat study (McCollister et al., 1961). Rats were exposed to different levels (100 through 10,000 ppm) of 2,4,5-trichlorophenol for 98 days. The LOAEL was 300 mg/kg/day (3,000 ppm) and the critical effects observed were mild diuresis and slight degenerative changes in the liver and kidneys. An uncertainty factor of 1,000 was applied to the NOAEL of 100 mg/kg/day (1,000 ppm) to obtain the RfD. The confidence level in this RfD is low. The health effects for 2,4,5-trichlorophenol were reviewed by the U.S. EPA RfD/RfC workgroup and determined to be inadequate for derivation of an inhalation RfD.

This substance has been evaluated by the U.S. EPA for evidence of human carcinogenic potential. The evaluation is pending future review by an inter-office agency work group. A risk assessment summary will be included on IRIS when the review has been completed (EPA, 1991).

2,4,6-Trichlorophenol

The chronic oral and inhalation RfDs for 2,4,6-trichlorophenol are not available at this time (EPA, 1991). The health effects data for 2,4,6-trichlorophenol were reviewed by the U.S. EPA RfD/RfC Work Group and determined to be inadequate for derivation of an inhalation RfC.

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "B2" - probable human carcinogen (EPA, 1991). 2,4,6-Trichlorophenol has been shown to induce an increased incidence of lymphomas or leukemias in male rats and hepatocellular adenomas or carcinomas in male and female mice. An oral slope factor of 1.1E-2 mg/kg/day has been established based on a dietary study in F344 rats resulting in an increased

incidence of leukemia (NCI, 1979). An inhalation unit risk factor of 3.1E-6 ug/m^3 (9E-04 mg/kg/day) has also been established by basing the oral data from the NCI study (EPA, 1991).

2,6-Dinitrotoluene

The health effects data for 2,6-dinitrotoluene were found to be inadequate for quantitative risk assessment (EPA, 1991a).

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "B2" - probable human carcinogen (EPA, 1991). A mixture of 2,4- and 2,6-dinitrotoluene isomers has been shown to hepatocellular carcinomas and neoplastic modules in the liver and fibroadenomas, fibromas and adenocarcinomas/carcinomas in the mammary gland and in a 2-year dietary study in Sprague-Dawley rats (Ellis et al., 1979).

Based upon this study an oral slope factor of 6.8E-1 mg/kg/day has been established. Quantitative estimate of carcinogenic risk from inhalation exposure to 2,4-dinitrotoluene is not available (EPA, 1991).

3,3'-Dichlorobenzidine

No RfD was found in IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). This compound has been shown to produce tumors (zymbal gland, skin, mammary gland, ileum, bladder, liver in rats, mice and dogs (Pliss, 1959; Stula et al., 1975; Stula et al., 1978; Osanai, 1976). An oral slope factor of 4.5E-1 mg/kg/day has been established (EPA, 1991) based upon data from Stula et al. (1975). There is no

quantitative estimate of carcinogenic risk from inhalation exposure available (EPA, 1991).

Acenaphthene

The chronic oral RfD for acenaphthene is 6E-02 mg/kg/day (EPA, 1991) and is based on a subchronic gavage study in mice (U.S. EPA, 1989). Mice received 0, 175, 350, or 700 mg/kg/day acenaphthene by oral gavage for 90 days. The LOAEL was 350 mg/kg/day and the critical effects observed were liver weight changes accompanied by microscopic alterations. No treatment related effects on survival, clinical signs or body weight changes were observed. An uncertainty factor of 3000 was applied to the NOAEL of 175 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

This compound has not yet been evaluated by the EPA for evidence of human carcinogenic potential (EPA, 1991).

Acenaphthylene

The chronic oral RfD for this substance is under review by an EPA work group (EPA, 1991). A chronic inhalation RfD is not available (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Anthracene

The chronic oral RfD for anthracene is 3E-01 mg/kg/day (EPA, 1991) and is based on a subchronic gavage study in mice (U.S. EPA, 1989). Mice received 0, 250, 500, or 1,000 mg/kg/day anthracene by oral gavage for 90 days. No treatment related effects on survival, clinical signs or body weight changes were observed. An uncertainty factor of 3000 was applied to the NOAEL of 1,000 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Benzoic Acid

The chronic oral RfD for benzoic acid is 4E+0 mg/kg/day (EPA, 1991) and is based on data regarding the amounts of benzoic acid and sodium benzoate produced as a food preservative (FDA, 1973). The FDA estimated a daily per capita intake of 0.9-34 mg for benzoic acid and 34-328 mg for sodium benzoate. At these levels, there are no reports of toxic effects in humans. These compounds have Generally Recognized as Safe (GRAS) status by FDA. Therefore, the upper ranges can be considered NOAELs for benzoic acid and sodium benzoate. No uncertainty factors are applied and based on conversion factors, the RfD for benzoic acid has been established at 312 mg/day for a 70 kg human or 4 mg/kg/day. The confidence in this RfD is medium.

A chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenicity of this compound is "D" (EPA, 1991).

Benzo(a)anthracene

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence). No oral slope factor for benzo(a)anthracene has been established (EPA, 1991), however this compound has been shown to produce liver, lung and skin cancer in animal models (Klein, 1963; IARC, 1973; Steiner and Faulk, 1951; Steiner and Edgecomb, 1952 and Wislocki et al., 1986). Current EPA guidance suggests the use of an oral slope factor of 11.5

mg/kg/day^{-1} and an inhalation slope factor of 6.1 mg/kg/day^{-1}. These values are derived from experimental data utilizing benzo(a)pyrene as the test compound.

Benzo(a)pyrene

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). Benzo(a)pyrene has been shown to produce lung and stomach cancer in animal models (Neal and Rigdon, 1967; Feron et al., 1973; Kobayashi, 1975; Rigdon and Neal, 1966, 1969; Thyssen et al., 1981). The oral and inhalation slope factors for benzo(a)pyrene have been withdrawn by EPA. As an interim measure, the withdrawn values have been recommended for use by EPA. These values are 11.5 and 6.1 mg/kg/day^{-1} for the oral and inhalation routes, respectively.

Benzo(b)fluoranthene

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). No oral slope factor for benzo(b)fluoranthene has been established, however this compound has been shown to produce lung and thorax carcinomas, lung adenomas and skin tumors in animal models (Deutsch-Wenzel et al., 1983; LaVoie et al., 1987; Lacassagne et al., 1963). Current EPA guidance suggests the use of an oral slope factor of 11.5 mg/kg/day^{-1} and an inhalation slope factor of 6.1 mg/kg/day^{-1}. These

values are derived from experimental data utilizing benzo(a)pyrene as the test compound.

Benzo(ghi)perylene

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Benzo(k)fluoranthene

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). No oral slope factor for benzo(k)fluoranthene has been established, however this compound has been shown to produce lung and thorax carcinomas, lung adenomas and skin tumors in animal models (Deutsch-Wenzel et al., 1983; LaVoie et al., 1982, 1987; Van Duuren et al., 1966). Current EPA guidance suggests the use of an oral slope factor of 11.5 $mg/kg/day^{-1}$ and an inhalation slope factor of 6.1 $mg/kg/day^{-1}$. These values are derived from experimental data utilizing benzo(a)pyrene as the test compound.

Bis(2-chloroethyl)ether

No oral RfD was found in IRIS or HEAST.

The health effects data for bis(cloroethyl)ether have been reviewed by the RfD/RfC Work Group and determined to be inadequate for derivation of an inhalation RfD (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "B2" - probable human carcinogen (EPA, 1991). The oral slope factor for this compound has been established as 1.1E+0 mg/kg/day (EPA, 1991) based on a chronic oral gavage followed by dietary study in mice (Innes et al., 1969). Liver tumors were detected in mice given bis(2-chloroethyl)ether for 560 days. An inhalation slope factor of 1.1E+0 mg/kg/day was also established based on route-to-route extrapolation of this oral data (EPA, 1991).

Bis(2-ethylhexyl)phthalate

The chronic oral RfD for Bis(2-ethylhexyl)phthalate (BEHP) is 2E-02 mg/kg/day (EPA, 1991) and is based on a subchronic feeding study in guinea pigs (Carpenter et al., 1953). Guinea pigs received 19 or 64 mg/kg/day BEHP in their food for 1 year. There were no treatment related toxic effects, however both dose groups had increased liver weights. An uncertainty factor of 1,000 was applied to the LOAEL of 19 mg/kg/day to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD for this compound is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence). The oral slope factor for BEHP is 1.4E-2 $mg/kg/day^{-1}$ (EPA, 1991), and has been shown to produce liver tumors in an animal model (NTP, 1982). A quantitative estimate of carcinogenic risk from inhalation exposure is not available (EPA, 1991).

Butylbenzylphthalate

The chronic oral RfD for butylbenzylphthalate is 2E-01 mg/kg/day (EPA, 1991) and is based on a subchronic feeding study in rats (NTP, 1985). Rats

received 0, 17, 51, 159, 470, 1417 mg/kg/day butylbenzylphthalate in their diet for 26 weeks. The LOAEL was 470 mg/kg/day and the critical effects observed were a decrease in body weight, decreased testes' size, decreased organ weights and hematological effects. An uncertainty factor of 1,000 was applied to the NOAEL of 159 mg/kg/day to obtain the RfD. The confidence level in this RfD is medium.

The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - a possible human carcinogen (EPA, 1991) based upon an increase in mononuclear cell leukemia in female rats fed butyl benzyl phthalate at doses of 0.6000 or 12,000 ppm (NTP, 1982). A quantitative estimate of carcinogenic risk from oral exposure is not available (EPA, 1991).

Chrysene

Data has been determined to be inadequate for quantitative risk assessment (EPA, 1991b).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). No oral slope factor for chrysene has been established, however this compound has been shown to produce carcinomas, and malignant lymphomas in mice (Wislocki et al., 1986; Buening et al., 1979). Current EPA guidance suggests the use of an oral slope factor of 11.5 $mg/kg/day^{-1}$ and an inhalation slope factor of 6.1 $mg/kg/day^{-1}$. These values are derived from experimental data utilizing benzo(a)pyrene as the test compound.

Dibenzofuran

Data is inadequate for a quantitative risk assessment (EPA, 1991a).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Dibenzo(a,h)anthracene

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). No oral slope factor for dibenzo(a,h)- anthracene has been established, however this compound has been shown to produce lung and mammary tumors after oral administration as well as fibrosarcomas after subcutaneous injection in animal models (Snell and Stewart, 1962, 1963; Biancifiori and Caschera, 1962; Berenblum and Haran, 1955; Lubut et al., 1983). Current EPA guidance suggests the use of an oral slope factor of 11.5 $mg/kg/day^{-1}$ and an inhalation slope factor of 6.1 $mg/kg/day^{-1}$. These values are derived from experimental data utilizing benzo(a)pyrene as the test compound.

Diethylphthalate

The chronic oral RfD for diethylphthalate is 8E-01 mg/kg/day (EPA, 1991) and is based on a subchronic feeding study in rats (Brown et al., 1978). Rats received 0, 150, 770, and 3160 mg/kg/day diethylphthalate in their diet for 16 weeks. The LOAEL was 3160 mg/kg/day and the critical effects observed were a decrease in body weight, decreased food consumption and altered organ weights. No changes in behavior or other clinical signs of toxicity were observed. An uncertainty factor of 1,000 was applied to the NOAEL of 770 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Dimethylphthalate

The chronic oral RfD for dimethyl phthalate is 1E+0 (EPA, 1991; value under review by RfD Work Group) (EPA, 1991a) and is based upon a chronic rat study (Lehman, 1955). Rats were fed dimethyl phthalate at a dose of 1,000 mg/kg/day in the diet for two years. The critical effects observed were a minor effect on growth and some nephritic involvement. An uncertainty factor of 100 was applied to obtain the RfD.

The health effects data for dimethylphthalate were reviewed by the U.S. EPA RfD/RfC Work Group and determined to be inadequate for derivation of an inhalation RfD (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Di-n-butylphthalate

The chronic oral RfD for di-n-butylphthalate is 1E-01 mg/kg/day (EPA, 1991) and is based on a subchronic feeding study in rats (Smith, 1953). Rats received 0, 0.01, 0.05, 0.25 and 1.25 percent di-n-butylphthalate in their diet for 1 year. The LOAEL was 600 mg/kg/day (1.25%) and the critical effect observed was an increase in mortality. No changes in behavior or other clinical signs of toxicity were observed. An uncertainty factor of 1,000 was applied to the NOAEL of 125 mg/kg/day (0.25%) to obtain the RfD. The confidence level in this RfD is low.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Di-n-octylphthalate

The chronic oral RfD for di-n-octylphthalate is 2E-02 mg/kg/day (EPA, 1991a) and is based on a subchronic feeding study in rats (Piekacz, 1971). An uncertainty factor of 1,000 was applied to the LOAEL of 175 mg/kg/day to obtain the RfD. The critical effects observed at the LOAEL were elevated kidney and liver weights and increased SGOT and SGPT levels.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Fluoranthene

The chronic oral RfD for fluoranthene is 4E-02 mg/kg/day (EPA, 1991) and is based on a subchronic gavage study in mice (U.S. EPA, 1988). Mice received 0, 125, 250, or 500 mg/kg/day fluoranthene by oral gavage for 13 weeks. The LOAEL was 250 mg/kg/day and the critical effects seen were neuropathy, increased salivation and increased liver enzymes. An uncertainty factor of 3000 was applied to the NOAEL of 125 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Fluorene

The chronic oral RfD for fluorene is 4E-02 mg/kg/day (EPA, 1991) and is based on a subchronic gavage study in mice (U.S. EPA, 1989). Mice received 0, 125, 250, or 500 mg/kg/day fluorene by oral gavage for 13 weeks. The LOAEL was 250 mg/kg/day and the critical effects seen were neuropathy, increased salivation, increased liver enzymes and hematological effects. An uncertainty factor of 3000 was applied to the NOAEL of 125 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Hexachlorobenzene

The chronic oral RfD for hexachlorobenzene is 8E-4 mg/kg/day (EPA, 1991) and is based upon a chronic feeding study in rats (Arnold et al., 1985). Male and female Sprague-Dawley rats, the FO generation, were fed diets containing 0, 0.32, 1.6, 8.0 or 40 ppm of hexachlorobenzene for 90 days prior to mating and until 21 days after parturition. The F1 offspring were fed their respective parents' diets for the remainder of their lifetime (total 130 weeks). The LOAEL of 8.0 ppm (converted to 0.29 mg/kg/day) was established based on an increase in hepatic centrilobular basophilic chromagenesis and hematological effects in the F1 offspring. An uncertainty factor of 100 was applied to the NOAEL of 1.6 ppm (converted to 0.08 mg/kg/day) to obtain the RfD. The confidence level of this RfD is medium.

The health effects data for hexachlorobenzene were reviewed by the U.S. EPA RfD/RfC Work Group and determined to be inadequate for derivation of an inhalation RfD (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "B2" - probable human carcinogen (EPA, 1991). Hexachlorobenzene has been shown to induce tumors in the liver, thyroid and kidney in three rodent species. An oral slope factor of 1.6 mg/kg/day (EPA, 1991) has been established for hexachlorobenzene based upon the induction of hepatocellular carcinomas in a dietary study in rats (Erturk et al., 1986). An inhalation unit risk factor of 4.6E-4 ug/m^3 (1.6 mg/kg/day) has also been established based upon data from the oral study (EPA, 1991).

Hexachlorobutadiene

The chronic oral RfD for hexachlorobutadiene is 2E-3 mg/kg/day (EPA, 1991) and is based upon a chronic feeding study in rats (Kociba et al., 1977). Rats were fed diets containing hexachlorobutadiene at doses equivalent to 0.2, 2.0 or 20 mg/kg/day. A LOAEL of 2.0 mg/kg/day was established for kidney toxicity. An uncertainty factor of 100 was applied to the NOAEL of 0.2 mg/kg/day to obtain the RfD. The confidence level in this RfD is low. The chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "C" - possible human carcinogen (EPA, 1991). Hexachlorobutadiene has been shown to induce renal neoplasms in male and female rats. An oral slope factor of 7.8E-2 mg/kg/day has been established based on the induction of renal tubular adenomas and adenocarcinomas in Sprague-Dawley rats during an oral feeding study (Kociba et al., 1977). An inhalation unit risk factor of 2.2E-5 ug/m^3 (7.8E-02 mg/kg/day) has also been established based on the oral exposure data (EPA, 1991).

Hexachloroethane

The chronic oral RfD for hexachloroethane is 1E-3 mg/kg/day (EPA, 1991) and is based upon a subchronic dietary study in rats (Gorzinski et al., 1985). Fischer 344 rats were administered diets containing 0, 1, 15 or 62 mg/kg/day hexachloroethane for 16 weeks. The LOAEL of 15 mg/kg/day was established based on atrophy and degeneration of the renal tubules. An uncertainty factor of 1,000 was applied to the NOAEL of 1 mg/kg/day to obtain the RfD. The confidence level in this RfD is medium. A chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "C" - possible human carcinogen (EPA, 1991) and is based upon the observation of carcinomas in one mouse strain after oral exposure. An oral slope factor of 1.4E-2 mg/kg/day (EPA, 1991) was established based upon the induction of hepatocellular carcinomas in B6C3F1 mice after gavage exposure to hexachloroethane (NCI, 1978). An inhalation unit risk factor of 4.0E-6 ug/m^3 (1.4E-02 mg/kg/day) has also been established based on the oral exposure data (EPA, 1991).

Indeno(1,2,3-cd)pyrene

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). No oral slope factor for indeno(1,2,3-cd)pyrene has been established, however this compound has been shown to produce lung and skin tumors in animal models (Deutsch-Wenzel et al., 1983; Lacassagne et al., 1963; Hoffman and Wynder, 1966; Rice et al., 1985a, 1986). Current EPA guidance suggests the use of an oral slope factor of 11.5 mg/kg/day^{-1} and an inhalation slope factor of 6.1 mg/kg/day^{-1}. These values are derived from experimental data utilizing benzo(a)pyrene as the test compound.

Isophorone

The chronic oral RfD for isophorone is 2E-1 mg/kg/day (EPA, 1991) and is based on a 90-day dog feeding study (Nor-Am Agricultural Products, Inc., 1972a) and a 2-year rat gavage study (NTP, 1984). Beagle dogs were administered gelatin capsules containing 0, 35, 75 or 150 mg

isophorone/kg/day, 7 days/week for 90 days. A NOEL for systemic toxicity was established at 150 mg/kg/day due to the lack of effects produced at any dose tested. NTP (1984) administered 0, 250 or 500 mg isophorone/kg/day, 5 days/week for 103 weeks by corn oil gavage to groups of F344/N rats and B6C3F1 mice. The LOAEL was established at 250 mg/kg/day (converted to 179 mg/kg/day based on 5 of 7 days) based on a variety of proliferative lesions in the kidney of male rats. An uncertainty factor of 1,000 was applied to the NOEL of 150 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The health effects data for isophorone were reviewed by the U.S. EPA RfD/RfC Work Group and determined to be inadequate for derivation of an inhalation RfD (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenic potential of this compound is "C" - possible human carcinogen (EPA, 1991) and is based upon an increase of preputial gland carcinomas and a slight elevation of late-appearing renal tubular adenomas and adenocarcinomas in male rats, and a possible increase in induction of hepatocellular and integumentary tumors. An oral slope factor of 4.1E-3 mg/kg/day (EPA, 1991) has been established based on the induction of preputial gland carcinoma and kidney tubular tumors in the male F344/N rat following gavage administration of isophorone (NTP, 1986). Quantitative estimate of carcinogenic risk from inhalation exposure to isophorone is not available (EPA, 1991).

Naphthalene

The chronic oral RfD for naphthalene is 4E-03 mg/kg/day (EPA, 1991a) (value pending current review) and is based on a subchronic gavage study in rats (NTP, 1980). An uncertainty factor of 10,000 was applied to the LOAEL of 35.7 mg/kg/day to obtain the RfD. The critical effect observed in this study was decreased body weight gain.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Nitrobenzene

The chronic oral RfD for nitrobenzene is 5E-4 mg/kg/day (may change pending current review) (EPA, 1991) and is based on route-to-route extrapolation of a subchronic inhalation study in rats and mice (CIIT, 1984). These animals were exposed to nitrobenzene at 1 of 3 doses, 6 hours/day, 5 days/week for 90 days. The LOAEL was 25 mg/m^3 (converted to 4.6 mg/kg/day) in mice based on hematologic, adrenal, renal and hepatic lesions. There was no NOAEL. An uncertainty factor of 10,000 was applied to the LOAEL to obtain the RfD. The confidence level in this RfD is low.

The chronic inhalation RfD has been established at 2E-3 mg/m^3 (verified; workgroup concurrence on final data base file and IRIS input pending) (EPA, 1991a) and is based on the inhalation data described above (CIIT, 1984). The UF applied to obtain this RfD was 3,000.

The EPA weight of evidence classification for the human carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

N-nitroso-di-n-propylamine

No RfDs for this compound were found in IRIS or HEAST (EPA, 1991, 1991a).

The EPA weight of evidence classification for the human carcinogenicity of this compound is "B2" - probable human carcinogen (EPA, 1991) and is based on increased tumor incidence at multiple sites in two rodent species and in monkeys administered the compound by various routes. An oral slope factor of 7.0E+0 mg/kg/day (EPA, 1991) was established based on the induction of

hepatocellular carcinomas in BD rats administered N-nitroso-di-n-propylamine in drinking water (Druckrey et al., 1967; Druckrey, 1967). Quantitative estimate of carcinogenic risk from inhalation exposure is not available (EPA, 1991).

N-Nitrosodiphenylamine

Data has been determined to be inadequate for quantitative risk assessment (EPA, 1991a).

The EPA weight of evidence classification for the human carcinogenicity of this compound is "B2" - probable human carcinogen (EPA, 1991) based on an increased incidence of bladder tumors in male and female rats and reticulum cell sarcomas in mice. An oral slope factor of 4.9E-3 mg/kg/day (EPA, 1991) was established based on the induction of urinary bladder transitional cell carcinomas in female rats following administration of N-nitrosodiphenylamine in the diet (NCI, 1979). Quantitative estimate of carcinogenic risk from inhalation exposure is not available (EPA, 1991).

Pentachlorophenol

The chronic oral RfD for this compound is 3E-2 mg/kg/day (EPA, 1991) and is based on a chronic dietary study in rats (Schwetz et al., 1978). Rats were administered pentachlorophenol at doses of 3, 10 or 30 mg/kg/day in the diet for 2 years. The LOAEL was 10 mg/kg/day based on liver and kidney toxicity. An uncertainty factor of 100 was applied to the NOAEL of 3 mg/kg/day to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD is under review by an EPA work group (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenicity of this compound is "B2" - probable human carcinogen (EPA, 1991) and is based on

an increase in hepatocellular adenomas and carcinomas, adrenal medulla pheochromocytomas and malignant pheochromocytomas and/or hemangiosarcomas and hemangiomas in mice. An oral slope factor of 1.2E-1 mg/kg/day (EPA, 1991) was established based on an increase in the tumor types listed previously in female mice following administration of pentachlorophenol (NTP, 1989). Quantitative estimate of carcinogenic risk from inhalation exposure is not available (EPA, 1991).

Phenanthrene

Data has been determined to be inadequate for quantitative risk assessment (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Phenol

The chronic oral RfD for phenol is 6E-1 mg/kg/day (EPA, 1991) and is based upon a developmental study in rats (NTP, 1983). Pregnant CD rats were administered phenol by gavage at doses of 0, 30, 60, and 120 mg/kg/day on gestational days 6 to 15. The LOAEL was 120 mg/kg/day and the critical effect observed was a highly significant reduction in fetal body weights. An uncertainty factor of 100 was applied to the highest fetal NOAEL in this study (60 mg/kg/day) to obtain the RfD. The confidence level in this RfD is low to medium.

The health effects data for phenol have been reviewed by the U.S. EPA RfD/RfC Work Group and determined to be inadequate for derivation of an inhalation RfD (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

Pyrene

The chronic oral RfD for pyrene is 3E-02 mg/kg/day (EPA, 1991) and is based on a subchronic gavage study in mice (U.S. EPA, 1989). Mice received 0, 75, 125, or 250 mg/kg/day pyrene by oral gavage for 13 weeks. The LOAEL was 125 mg/kg/day and the critical effects seen were toxic effects to the kidney including changes to the renal tubular pathology and decreased kidney weight. An uncertainty factor of 3000 was applied to the NOAEL of 75 mg/kg/day to obtain the RfD. The confidence level in this RfD is low.

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to human carcinogenicity (EPA, 1991).

F.4 Pesticides/PCBs

4,4'- DDD

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence). This compound has been shown to produce lung tumors in mice (Tomatis et al., 1974), liver tumors in male mice (Tomatis et al., 1974) and thyroid tumors in male rats (NCI, 1978). The oral slope factor for 4,4'- DDD is 2.4E-01 mg/kg/d^{-1} (EPA, 1991) and is based upon the results of Tomatis et al. (1974). A quantitative estimate of carcinogenic risk from inhalation exposure is not available (EPA, 1991).

4,4'- DDE

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence). This compound has been shown to produce liver tumors in mice and hamsters (NCI, 1978; Tomatis et al., 1974; Rossi et al., 1983) and thyroid tumors in female rats (NCI, 1978). The oral slope factor for 4,4'- DDE is 3.4E-01 $mg/kg/d^{-1}$ (EPA, 1991) and is based upon the above studies in mice and hamsters. No quantitative estimate of carcinogenic risk from inhalation exposure to this compound is available (EPA, 1991).

4,4'- DDT

The chronic oral RfD for 4,4'- DDT is 5E-04 mg/kg/day (EPA, 1991) and is based on a subchronic feeding study in rats (Laug et al., 1950). Rats received 0, 1, 5, 10, or 50 ppm 4,4' - DDT in their food for 15 - 27 weeks. The LOAEL was 0.25 mg/kg/day (5 ppm diet) and the critical effects seen were histopathological effects to the liver. An uncertainty factor of 100 was applied to the NOAEL of 0.05 mg/kg/day (1 ppm diet) to obtain the RfD. The confidence level in this RfD is medium.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - a probable human carcinogen (sufficient animal evidence, inadequate/no human evidence). This compound has been shown to produce liver tumors in mice and rats. The oral slope factor for 4,4'-DDT is 3.4E-01 $mg/kg/d^{-1}$ (EPA, 1991) and is based upon studies by Turusov et al., 1973; Terracini et al., 1973; Thorpe and Walker, 1973; Tomatis and Turusov, 1975; Cabral et al., 1982; and Rossi et al., 1977. On the basis of route-to-route

extrapolation, the inhalation slope factor for 4,4'-DDT has been set at 3.4E-01 mg/kg/day (9.7E-5 ug/m^3) (EPA, 1991a).

Aldrin

The chronic oral RfD for aldrin is 3E-5 mg/kg/day (EPA, 1991) and is based on a chronic feeding study in rats (Fitzhugh et al., 1964). Rats were fed aldrin in the diet at levels of 0, 0.5, 2, 10, 50, 100 or 150 ppm for 2 years. The LOAEL was 0.5 ppm diet based on liver toxicity. There was no NOAEL. An uncertainty factor of 1,000 was applied to the LOAEL to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenicity of this compound is "B2" - probable human carcinogen (EPA, 1991). Aldrin has been shown to produce significant increases in liver tumors in three different strains of mice in both males and females. An oral slope factor of 1.7E+1 mg/kg/day (EPA, 1991) has been established based on the development of liver carcinomas in female and male C3H mice (Davis, 1965) and male B6C3F1 mice (NCI, 1978). An inhalation unit risk factor of 4.9E-3 ug/m^3 (17 mg/kg/day) (EPA, 1991) was also established based upon the oral data.

Alpha-BHC

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of alpha-BHC is "B2" - probable human carcinogen (EPA, 1991). Alpha-BHC has been shown to induce liver tumors in mice and rats. An oral slope factor of 6.3E+0 mg/kg/day has been established based upon a dietary study in mice (Ito et al.,

1973a). An inhalation unit risk factor of 1.8E-3 ug/m^3 (6.3E+0 mg/kg/day) was calculated from the data by Ito et al (1973a).

Alpha-Chlordane

Gamma-chlordane (CAS #57-74-9) is a mixture of the cis and trans isomers, alpha-chlordane and beta-chlordane. For the purpose of this toxicity profile, the health effects assessment data presented for gamma-chlordane is assumed to be representative of alpha-chlordane as well.

Beta-BHC

No RfDs were found in either IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of beta-BHC is "C" - possible human carcinogen (EPA, 1991). Beta-BHC has been shown to produce benign liver tumors in a dietary study in mice. An oral slope factor of 1.8E+0 mg/kg/day has been established (EPA, 1991) based upon a dietary study in mice (Thorpe and Walker, 1973). An inhalation unit risk factor of 5.3E-4 ug/m^3 (1.8E+0 mg/kg/day) was calculated using data from the same study.

Dieldrin

The chronic oral RfD for dieldrin is 5E-5 mg/kg/day (EPA, 1991) and is based upon a two year rat feeding study (Walker et al., 1969). Rats were administered dieldrin for 2 years at dietary concentrations of 0, 0.1, 1.0 or 10.0 ppm. The LOAEL was 1.0 ppm (converted to 0.05 mg/kg/day) and the critical effects observed were increased liver weights and liver parenchymal cell changes including focal proliferation and local hyperplasia. An uncertainty factor of 100 was applied to the NOAEL of 0.1 ppm (converted to

0.005 mg/kg/day) to obtain the RfD. The confidence level in this RfD is medium. A chronic inhalation RfD for dieldrin is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of dieldrin is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). Dieldrin has been shown to be carcinogenic in various strains of mice of both sexes with the effects ranging from benign liver tumors, to hepatocarcinomas to pulmonary metastases (Davis, 1965; Walker et al., 1972; Thorpe and Walker, 1973; Tennekes et al., 1981; Meierhenry et al., 1983). An oral slope factor of 1.6E+1 mg/kg/day has been established (EPA, 1991) on the basis of the above studies. Based on route-to-route extrapolation, the inhalation slope factor has also been set at 1.6E+1 mg/kg/day (4.6E-3 ug/m^3).

Delta-BHC

Data has been determined to be inadequate for quantitative risk assessment (EPA, 1991a), therefore no RfDs were available for this compound.

The EPA weight of evidence classification for this compound was not available.

Endosulfan

Endosulfan (CAS #115-29-7), a technical grade material, is a mixture of the two isomers, Endosulfan I (CAS #959-98-8) and Endosulfan II (CAS #33213-65-9). The quantitative risk assessment data presented for Endosulfan is assumed to be representative of the two isomers.

The chronic oral RfD for endosulfan is 5E-5 mg/kg/day (EPA, 1991) and is based on a two generation rat reproduction study (Hoeschst, 1984a). Rats were

fed 0, 3, 15 and 75 ppm of endosulfan starting at 6 weeks of age and mating commenced at 18 weeks of age. The LOAEL was 3 ppm (converted to 0.15 mg/kg/day) and the effects observed were discoloration of cells in the proximal convoluted tubules of the kidney of males and the presence of a granular clumped pigment in these cells. An uncertainty factor of 3,000 was applied to the LOAEL to obtain the RfD. The confidence level in this RfD is medium. A chronic inhalation RfD is not available at this time (EPA, 1991). This chemical has not been evaluated by the U.S. EPA for evidence of human carcinogenic potential (EPA, 1991).

Endosulfan Sulfate

No RfDs were found in either IRIS or HEAST.

The U.S. EPA has not evaluated this chemical for evidence of human carcinogenic potential.

Endrin

The chronic oral RfD for endrin is 3E-4 mg/kg/day (EPA, 1991) and is based upon a chronic oral bioassay in dogs (Velsicol Chemical Corporation, 1969). Dogs were fed diets containing 0.1, 0.5, 1.0, 2.0 or 4.0 ppm endrin for 2 years. The LOAEL was 2 ppm (converted to 0.05 mg/kg/day) and the critical effects observed were occasional convulsions, slightly increased relative liver weights and mild histopathological effects in the liver (slight vacuolization of hepatic cells). An uncertainty factor of 100 was applied to the NOAEL of 1 ppm (converted to 0.025 mg/kg/day) to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to carcinogenicity for humans (EPA, 1991).

Endrin Ketone

Keto-Endrin has been identified as a metabolite of Endrin following microbial degradation in soil (Kearney and Kaufman, 1976). No RfDs for keto-Endrin were available in either IRIS or HEAST. While the EPA weight of evidence classification for the human carcinogenicity of the parent compound Endrin is "D", the U.S. EPA has not specifically evaluated the metabolite Endrin ketone for its human carcinogenic potential.

Gamma-BHC

The chronic oral RfD for gamma-BHC is 3E-4 mg/kg/day (EPA, 1991) and is based upon a subchronic oral bioassay in rats (Zoecon Corp., 1983). Rats were administered Lindane in the diet at concentrations of 0, 0.2, 0.8, 4, 20 or 100 ppm for 12 weeks. The LOAEL was 20 ppm (converted to 1.55 mg/kg/day) and the critical effects observed were liver and kidney toxicity. An uncertainty factor of 1,000 was applied to the NOAEL of 4 ppm (converted to 0.33 mg/kg/day) to obtain the RfD. The confidence level in this RfD is medium. The chronic inhalation RfD is not available at this time (EPA, 1991).

The evidence of human carcinogenic potential of this compound is currently under review by a CRAVE Workgroup (EPA, 1991a). While this value may change pending the current review, the oral slope factor had previously been established at 1.3E+0 mg/kg/day on the basis of a mouse dietary study (Thorpe and Walker, 1973). Liver tumors were induced following Lindane administration. The EPA weight of evidence classification for the

carcinogenicity of gamma-BHC was previously given as "B2-C". No inhalation slope factor has been established for this compound (EPA, 1991a).

Gamma-Chlordane

The chronic oral RfD for chlordane is 6E-5 mg/kg/day (EPA, 1991) and is based upon a chronic rat feeding study (Velsicol Chemical Co., 1983a). Rats were fed chlordane at dietary levels of 0, 1, 5 and 25 ppm for 130 weeks. The LOAEL was 5 ppm (converted to 0.273 mg/kg/day) in female rats and the critical effects observed were liver lesions (hypertrophy). An uncertainty factor of 1,000 was applied to the NOEL of 1 ppm (converted to 0.055 mg/kg/day) to obtain the RfD. The confidence level in this RfD is low. A risk assessment for this compound is under review by an EPA workgroup and, therefore, a chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of chlordane is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). Chlordane has been shown to produce benign and malignant liver tumors in four strains of mice of both sexes and in F344 male rats (Becker and Sell, 1979; Velsicol, 1973; NCI, 1977; Velsicol, 1983b). An oral slope factor of 1.3E+0 mg/kg/day has been established (EPA, 1991) and is based upon studies by Velsicol (1973) and NCI (1977). An inhalation unit risk factor of 3.7E-4 ug/m^3 (1.3E+0 mg/kg/day) has been established (EPA, 1991) based upon the oral data available.

Heptachlor

The chronic oral RfD for heptachlor is 5E-4 mg/kg/day (EPA, 1991) and is based on a two year feeding study in rats (Velsicol Chemical Corporation, 1955a). Rats were fed diets of 0, 1.5, 3, 5, 7 or 10 ppm of heptachlor for 2

years. The LOAEL was 5 ppm (converted to 0.25 mg/kg/day) and the critical effect observed was increased liver weight. An uncertainty factor of 300 was applied to the NOAEL of 3 ppm (converted to 0.15 mg/kg/day) to obtain the RfD. The confidence level in this RfD is low. A chronic inhalation RfD for heptachlor is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence) (EPA, 1991). Heptachlor has been shown to produce liver tumors in mice of both sexes (Davis, 1965; NCI, 1977). An oral slope factor of 4.5E+0 mg/kg/day (EPA, 1991) has been established based upon the above studies. An inhalation unit risk factor of 1.3E-3 ug/m^3 (4.5E+0 mg/kg/day) has been calculated from the oral data presented above (EPA, 1991).

Heptachlor Epoxide

The chronic oral RfD for heptachlor epoxide is 1.3E-5 mg/kg/day (EPA, 1991) and is based on a dietary study in dogs (Dow Chemical Co., 1958). Beagle dogs were fed diets containing 0, 0.5, 2.5, 5 or 7.5 ppm of heptachlor epoxide for 60 weeks. Liver to body weight ratios were significantly increased in a treatment-related fashion. Effects were noted in both males and females at the LEL of 0.5 ppm. There was no NOEL. An uncertainty factor of 1,000 was applied to the LEL (converted to 0.0125 mg/kg/day) to obtain the RfD. The confidence level in this RfD is low. A chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen. Heptachlor epoxide has been shown to induce liver carcinomas in mice of both sexes and in CFN female rats. The oral slope factor for heptachlor epoxide is 9.1E+0 mg/kg/day (EPA,

1991) and is based on the induction of hepatocellular carcinomas in male and female C3H mice (Davis, 1965) and male and female CD-1 mice (Velsicol, 1973). An inhalation unit risk factor of 2.6E-3 ug/m^3 (9.1E+0 mg/kg/day) was also calculated from the oral data (EPA, 1991).

Methoxychlor

The chronic oral RfD for methoxychlor is 5E-3 mg/kg/day (EPA, 1991) and is based upon a teratology study in rabbits (Kincaid Enterprises, 1986). Pregnant rabbits were administered methoxychlor at doses of 5.01, 35.5 or 251.0 mg/kg/day on days 7 through 19 of gestation. The LOAEL was 35.5 mg/kg/day and the critical effect observed was an excessive loss of litters (abortions). An uncertainty factor of 1,000 was applied to the NOEL of 5.01 mg/kg/day to obtain the RfD. The confidence in this oral RfD is low. A chronic inhalation RfD is not available at this time (EPA, 1991).

The EPA weight of evidence classification for the carcinogenicity of this compound is "D" - not classifiable as to carcinogenicity for humans (EPA, 1991).

Toxaphene

The chronic oral and inhalation RfDs for toxaphene are not available at this time (EPA, 1991).

The EPA weight of evidence classification for the human carcinogenicity of this compound is "B2" - probable human carcinogen (EPA, 1991). Toxaphene has been shown to produce an increased incidence of hepatocellular tumors in mice and thyroid tumors in rats. An oral slope factor of 1.1E+0 mg/kg/day (EPA, 1991) has been established based on the development of hepatocellular carcinomas and neoplastic nodules in male B6C3F1 mice following exposure to

toxaphene in the diet (Litton Bionetics, 1978). An inhalation unit risk factor of 3.2E-4 ug/m^3 (1.1 mg/kg/day) (EPA, 1991) has also been established based upon the oral data.

PCBs

No RfD was found in IRIS or HEAST.

The EPA weight of evidence classification for the carcinogenicity of this compound is "B2" - probable human carcinogen (sufficient animal evidence, inadequate/no human evidence (EPA, 1991). PCBs have been shown to produce liver tumors in rats and mice (Kimbrough et al., 1975; NCI, 1978; Norback and Weltman, 1985; Ito et al., 1973). An oral slope factor of 7.7 mg/kg/day has been established (EPA, 1990) based on the study by Norback and Weltman (1985). A quantitative estimate of carcinogenic risk from inhalation exposure is not available (EPA, 1991).

APPENDIX F

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F.5.1 Inorganics

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F.5.4 Pesticides/PCBs

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TABLE F.1-1
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC-CHRONIC EFFECTS: INHALATION

COMPOUND NAME	CHRONIC RFD INHALATION (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	INHALATION RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
INORGANICS					
Aluminum	NA			NA/IRIS,HEAST	
Antimony	4E-04 a				
Arsenic	1E-03 a				
Barium	1E-04		Fetotoxicity	HEAST	UF=1000
Beryllium	5E-03 a				
Cadmium	1E-03				
Calcium	NA			NA/IRIS,HEAST	
Chromium (VI)	6E-04		Nasal mucosa atrophy	HEAST	UF=300
Cobalt	NA			NA/IRIS,HEAST	
Copper	NA			NA/IRIS,HEAST	
Cyanide	2E-02 a		Myelin degeneration		
Iron	NA			NA/IRIS,HEAST	
Lead	NA		CNS effects	NA/IRIS,HEAST	
Magnesium	NA			NA/IRIS,HEAST	
Manganese	1E-04	Medium	Increased prevalance of respiratory disease and psychomotor disturbances	Occupational/IRIS	UF=300;MF=3
Mercury	9E-06		Neurotoxicity	Occupational/HEAST	UF=30
Nickel	NA			NA/IRIS,HEAST	
Potassium	NA			NA/IRIS,HEAST	
Selenium	NA			NA/IRIS,HEAST	
Silver	NA			NA/IRIS,HEAST	
Sodium	NA			NA/IRIS,HEAST	
Thallium	NA			NA/IRIS,HEAST	
Vanadium	7E-03 a				
Zinc	2E-01 a				
VOLATILES					
1,1-Dichloroethane	1E-01		Kidney damage	HEAST	UF=1000
1,1-Dichloroethene	NA			NA/IRIS,HEAST	
1,1,1-Trichloroethane	3E-01		Hepatotoxicity	HEAST	UF=1000
1,1,2-Trichloroethane	NA			NA/IRIS,HEAST	
1,1,2,2-Tetrachloroethane	NA			NA/IRIS,HEAST	
1,2-Dichloroethane	NA			NA/IRIS,HEAST	
1,2-Dichloroethene	NA			NA/IRIS,HEAST	
1,2-Dichloropropane	NA			NA/IRIS,HEAST	
1,3-Dichloropropene (Trans)	6E-03	High	Hypertrophy,hyperplasia in nasal mucosa	IRIS	UF=30
1,3-Dichloropropene (Cis)	6E-03	High	Hypertrophy,hyperplasia in nasal mucosa	IRIS	UF=30
2-Hexanone	NA			NA/IRIS,HEAST	
2-Butanone	9E-02		CNS	HEAST	UF=1000
4-Methyl-2-Pentanone	2E-02		Liver and kidney effects	HEAST	UF=1000
Acetone	NA			NA/IRIS,HEAST	
Benzene	NA			NA/IRIS,HEAST	
Bromodichloromethane	NA			NA/IRIS,HEAST	
Bromoform	NA			NA/IRIS,HEAST	
Bromomethane	6E-03		Neurotoxicity	HEAST	UF=3000
Carbon disulfide	3E-03		Fetal toxicity	HEAST	UF=1000
Carbon tetrachloride	NA			NA/IRIS,HEAST	
Chlorobenzene	5E-03		Liver and kidney effects	HEAST	UF=10,000
Chloroethane	2.9	Medium	Delayed fetal ossification	IRIS	UF=300;MF=1
Chloromethane	NA			NA/IRIS,HEAST	
Chloroform	NA			NA/IRIS,HEAST	
Dibromochloromethane	NA			NA/IRIS,HEAST	
Ethylbenzene	3E-01	Low	Developmental toxicity	IRIS	UF=300, MF=1
Methylene chloride	9E-01		None observed	HEAST	UF=100
Styrene	NA			NA/IRIS,HEAST	
Tetrachloroethene	NA			NA/IRIS,HEAST	
Toluene	6E-01		CNS effects, eyes and nose irritation	HEAST	UF=100
Trichloroethene	NA			NA/IRIS,HEAST	
Vinyl acetate	5.7E-02	High	Nasal epithelial lesions	IRIS	UF=30;MF=1
Vinyl chloride	NA			NA/IRIS,HEAST	
Xylenes	9E-02		CNS effects, eyes and nose irritation	HEAST	UF=100

a : The oral Rfd was used when an inhalation value was not available
b : Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

TABLE F.1-1 (cont.)
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC-CHRONIC EFFECTS: INHALATION

COMPOUND NAME	CHRONIC RFD INHALATION (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	INHALATION RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
SEMIVOLATILES					
1,2-Dichlorobenzene	4E-02		Decreased body weight gain	HEAST	UF=1000
1,2,4-Trichlorobenzene	3E-03		Increased uroporphyrin	HEAST	UF=1000
1,3-Dichlorobenzene	NA			NA/IRIS,HEAST	
1,4-Dichlorobenzene	2E-01		Liver and kidney effects	HEAST	UF=100
2-Chloronapthalene	NA			NA/IRIS,HEAST	
2-Chlorophenol	NA			NA/IRIS,HEAST	
2-Methylnaphthalene	NA			NA/IRIS,HEAST	
2-Methylphenol	NA			NA/IRIS,HEAST	
2-Nitroaniline	NA			NA/IRIS,HEAST	
2-Nitrophenol	NA			NA/IRIS,HEAST	
2,4-Dichlorophenol	NA			NA/IRIS,HEAST	
2,4-Dimethylphenol	NA			NA/IRIS,HEAST	
2,4-Dinitrophenol	NA			NA/IRIS,HEAST	
2,4-Dinitrotoluene	NA			NA/IRIS,HEAST	
2,4,5-Trichlorophenol	NA			NA/IRIS,HEAST	
2,4,6-Trichlorophenol	NA			NA/IRIS,HEAST	
2,6-Dinitrotoluene	NA			NA/IRIS,HEAST	
3-Nitroaniline	NA			NA/IRIS,HEAST	
3,3'-Dichlorobenzidine	NA			NA/IRIS,HEAST	
4-Bromophenyl-phenylether	NA			NA/IRIS,HEAST	
4-Chloro-3-methylphenol	NA			NA/IRIS,HEAST	
4-Chloroaniline	NA			NA/IRIS,HEAST	
4-Chlorophenyl-phenylether	NA			NA/IRIS,HEAST	
4-Methylphenol	NA			NA/IRIS,HEAST	
4-Nitroaniline	NA			NA/IRIS,HEAST	
4-Nitrophenol	NA			NA/IRIS,HEAST	
4,6-dinitro-2-methylphenol	NA			NA/IRIS,HEAST	
Acenaphthene	6E-02 a			NA/IRIS,HEAST	
Acenaphthylene	NA				
Anthracene	3E-01 a			NA/IRIS,HEAST	
Benzoic acid	NA				
Benzo(a)anthracene	NA			NA/IRIS,HEAST	
Benzo(a)pyrene	NA			NA/IRIS,HEAST	
Benzo(b)fluoranthene	NA			NA/IRIS,HEAST	
Benzo(ghi)perylene	NA			NA/IRIS,HEAST	
Benzo(k)fluoranthene	NA			NA/IRIS,HEAST	
Benzyl alcohol	NA			NA/IRIS,HEAST	
Bis(2-chloroethyl)ether	NA			NA/IRIS,HEAST	
Bis(2-chloroisopropyl)ether	NA			NA/IRIS,HEAST	
Bis(2-ethylhexyl)phthalate	2E-02 a			NA/IRIS,HEAST	
Butylbenzylphthalate	2E-01 a				
Chrysene	NA				
Dibenzofuran	NA			NA/IRIS,HEAST	
Dibenzo(a,h)anthracene	NA			NA/IRIS,HEAST	
Diethylphthalate	8E-01 a			NA/IRIS,HEAST	
Dimethylphthalate	NA				
Di-n-butylphthalate	1E-01 a			NA/IRIS,HEAST	
Di-n-octylphthalate	2E-02 a				
Fluoranthene	4E-02 a				
Fluorene	4E-02 a				
Hexachlorobenzene	NA				
Hexachlorobutadiene	NA			NA/IRIS,HEAST	
Hexachloroethane	NA			NA/IRIS,HEAST	
Hexachlorocyclopentadiene	2E-05			NA/IRIS,HEAST	
Indeno(123cd)pyrene	NA		Respiratory tract lesions	HEAST	UF=1000
Isophorone	NA			NA/IRIS,HEAST	
Naphthalene	4E-03 a,b			NA/IRIS,HEAST	
Nitrobenzene	5E-04				
N-nitroso-di-n-propylamine	NA		Hematologic,adrenal,renal,liver lesion	HEAST	UF=3000
N-nitrosodiphenylamine	NA			NA/IRIS,HEAST	
Pentachlorophenol	NA			NA/IRIS,HEAST	
Phenanthrene	NA			NA/IRIS,HEAST	
Phenol	NA			NA/IRIS,HEAST	
Pyrene	3E-02 a			NA/IRIS,HEAST	
PESTICIDES					
4,4'-DDD	NA				
4,4'-DDE	NA			NA/IRIS,HEAST	
4,4'-DDT	5E-04 a			NA/IRIS,HEAST	
Aldrin	NA				
Alpha-BHC	NA			NA/IRIS,HEAST	
Alpha-chlordane	NA			NA/IRIS,HEAST	
Beta-BHC	NA			NA/IRIS,HEAST	
Dieldrin	NA			NA/IRIS,HEAST	
Delta-BHC	NA			NA/IRIS,HEAST	
Endosulfan I	NA			NA/IRIS,HEAST	
Endosulfan II	NA			NA/IRIS,HEAST	
Endosulfan Sulfate	NA			NA/IRIS,HEAST	
Endrin	NA			NA/IRIS,HEAST	
Endrin ketone	NA			NA/IRIS,HEAST	
Gamma-BHC	NA			NA/IRIS,HEAST	
Gamma-chlordane	NA			NA/IRIS,HEAST	
Heptachlor	NA			NA/IRIS,HEAST	
Heptachlor epoxide	NA			NA/IRIS,HEAST	
Methoxychlor	NA			NA/IRIS,HEAST	
Toxaphene	NA			NA/IRIS,HEAST	
PCB's					
Aroclor-1016	NA				
Aroclor-1221	NA			NA/IRIS,HEAST	
Aroclor-1232	NA			NA/IRIS,HEAST	
Aroclor-1242	NA			NA/IRIS,HEAST	
Aroclor-1248	NA			NA/IRIS,HEAST	
Aroclor-1254	NA			NA/IRIS,HEAST	
Aroclor-1260	NA			NA/IRIS,HEAST	

a : The oral Rfd was used when an inhalation value was not available
b : Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

TABLE F.1-2
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC-SUBCHRONIC EFFECTS: INHALATION

COMPOUND NAME	SUBCHRONIC RFC (INHALATION) (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	INHALATION RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
INORGANICS					
Aluminum	NA			NA/HEAST	
Antimony	4E-04 a				
Arsenic	1E-03 a				
Barium	1E-03		Fetotoxicity	HEAST	UF=100
Beryllium	5E-03 a				
Cadmium	1E-03 a				
Calcium	NA			NA/HEAST	
Chromium (VI)	7E-02		Nasal mucosa atrophy	HEAST	UF=30
Cobalt	NA			NA/HEAST	
Copper	NA			NA/HEAST	
Cyanide	2E-02 a		Myelin degeneration		
Iron	NA			NA/HEAST	
Lead	NA			NA/HEAST	
Magnesium	NA			NA/HEAST	
Manganese	1E-4		Increased prevalance of reapiratory symptoms and psycho-motor disturbances	Occupational/HEAST	UF=900
Mercury	9E-06		Neurotoxicity	Occupational/HEAST	UF=30
Nickel	2E-02 a				
Potassium	NA			NA/HEAST	
Selenium	NA			NA/HEAST	
Silver	NA			NA/HEAST	
Sodium	NA			NA/HEAST	
Thallium	NA			NA/HEAST	
Vanadium	7E-03 a				
Zinc	2E-01 a				
VOLATILES					
1,1-Dichloroethane	1E+00		Kidney damage	HEAST	UF=100
1,1-Dichloroethene	NA			NA/HEAST	
1,1,1-Trichloroethane	3E+00		Hepatotoxicity	HEAST	UF=100
1,1,2-Trichloroethane	NA			NA/HEAST	
1,1,2,2-Tetrachloroethane	NA			NA/HEAST	
1,2-Dichloroethane	NA			NA/HEAST	
1,2-Dichloroethene	NA			NA/HEAST	
1,2-Dichloropropane	NA			NA/HEAST	
1,3-Dichloropropene (Trans)	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	UF=30
1,3-Dichloropropene (Cis)	6E-03		Hypertrophy,hyperplasia in nasal mucosa	HEAST	UF=30
2-Hexanone	NA			NA/HEAST	
2-Butanone	9E-01		CNS	HEAST	UF=100
4-Methyl-2-Pentanone	2E-01		Liver and kidney effects	HEAST	UF=100
Acetone	NA			NA/HEAST	
Benzene	NA			NA/HEAST	
Bromodichloromethane	NA			NA/HEAST	
Bromoform	NA			NA/HEAST	
Bromomethane	6E-03		Neurotoxicity	HEAST	UF=300
Carbon Disulfide	3E-03		Fetal toxicity	HEAST	UF=1000
Carbon tetrachloride	NA			NA/HEAST	
Chlorobenzene	5E-02		Liver and kidney effects	HEAST	UF=1000
Chloroethane	NA			NA/HEAST	
Chloromethane	NA			NA/HEAST	
Chloroform	NA			NA/HEAST	
Dibromochloromethane	NA			NA/HEAST	
Ethylbenzene	3E-01		Developmental toxicity	HEAST	UF=300
Methylene chloride	9E-01			HEAST	UF=100
Styrene	NA			NA/HEAST	
Tetrachloroethene	NA			NA/HEAST	
Toluene	6E-01		CNS effects, eyes and nose irritation	HEAST	UF=100
Trichloroethene	NA			NA/HEAST	
Vinyl acetate	5.7E-02		Nasal lesions	HEAST	UF=30
Vinyl chloride	NA			NA/HEAST	
Xylenes	9E-02		CNS effects, eyes and nose irritation	HEAST	UF=100

a : The oral Rfd was used when an inhalation value was not avaliable
b : Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

TABLE F.1-2 (cont.)
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC-SUBCHRONIC EFFECTS: INHALATION

COMPOUND NAME	SUBCHRONIC RFC (INHALATION) (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	INHALATION RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
SEMIVOLATILES					
1,2-Dichlorobenzene	4E-01		Decreased body weight gain	HEAST	UF=100
1,2,4-Trichlorobenzene	3E-02		Increased uroporphyrin	HEAST	UF=100
1,3-Dichlorobenzene	NA			NA/HEAST	
1,4-Dichlorobenzene	2E-01		Liver and kidney effects	HEAST	UF=100
2-Chloronaphthalene	NA			NA/HEAST	
2-Chlorophenol	NA			NA/HEAST	
2-Methylnaphthalene	NA			NA/HEAST	
2-Methylphenol	NA			NA/HEAST	
2-Nitroaniline	NA			NA/HEAST	
2-Nitrophenol	NA			NA/HEAST	
2,4-Dichlorophenol	NA			NA/HEAST	
2,4-Dimethylphenol	NA			NA/HEAST	
2,4-Dinitrophenol	NA			NA/HEAST	
2,4-Dinitrotoluene	NA			NA/HEAST	
2,4,5-Trichlorophenol	NA			NA/HEAST	
2,4,6-Trichlorophenol	NA			NA/HEAST	
2,6-Dinitrotoluene	NA			NA/HEAST	
3-Nitroaniline	NA			NA/HEAST	
3,3'-Dichlorobenzidine	NA			NA/HEAST	
4-Bromophenyl-phenylether	NA			NA/HEAST	
4-Chloro-3-methylphenol	NA			NA/HEAST	
4-Chloroaniline	NA			NA/HEAST	
4-Chlorophenyl-phenylether	NA			NA/HEAST	
4-Methylphenol	NA			NA/HEAST	
4-Nitroaniline	NA			NA/HEAST	
4-Nitrophenol	NA			NA/HEAST	
4,6-dinitro-2-methylphenol	NA			NA/HEAST	
Acenaphthene	6E-01 a			NA/HEAST	
Acenaphthylene	NA				
Anthracene	3E+00 a			NA/HEAST	
Benzoic acid	NA				
Benzo(a)anthracene	NA			NA/HEAST	
Benzo(a)pyrene	NA			NA/HEAST	
Benzo(b)fluoranthene	NA			NA/HEAST	
Benzo(g,h,i)perylene	NA			NA/HEAST	
Benzo(k)fluoranthene	NA			NA/HEAST	
Benzyl alcohol	NA			NA/HEAST	
Bis(2-chloroethyl)ether	NA			NA/HEAST	
Bis(2-chloroisopropyl)ether	NA			NA/HEAST	
Bis(2ethylhexyl)phthalate	2E-02 a			NA/HEAST	
Butylbenzylphthalate	2E+00 a				
Chrysene	NA			NA/HEAST	
Dibenzofuran	NA			NA/HEAST	
Dibenzo(a,h)anthracene	NA			NA/HEAST	
Diethylphthalate	8E+00 a				
Dimethylphthalate	NA			NA/HEAST	
Di-n-butylphthalate	1E+00 a				
Di-n-octylphthalate	2E-02 a				
Fluoranthene	4E-01 a				
Fluorene	4E-01 a				
Hexachlorobenzene	NA			NA/HEAST	
Hexachlorobutadiene	NA			NA/HEAST	
Hexachloroethane	NA			NA/HEAST	
Hexachlorocyclopentadiene	2E-04		Respiratory lesions	HEAST	UF=100
Indeno(1,2,3-c,d)pyrene	NA			NA/HEAST	
Isophorone	NA			NA/HEAST	
Naphthalene	4E-02 a,b				
Nitrobenzene	5E-03		Hematological,adrenal,heptic lesions	HEAST	UF=300
N-nitroso-di-n-propylamine	NA			NA/HEAST	
N-nitrosodiphenylamine	NA			NA/HEAST	
Pentachlorophenol	NA			NA/HEAST	
Phenanthrene	NA			NA/HEAST	
Phenol	NA			NA/HEAST	
Pyrene	3E-01 a			NA/HEAST	
PESTICIDES/PCBS					
4,4'-DDD	NA			NA/HEAST	
4,4'-DDE	NA			NA/HEAST	
4,4'-DDT	5E-04 a		Liver lesions		
Aldrin	NA			NA/HEAST	
Alpha-BHC	NA			NA/HEAST	
Alpha-chlordane	NA			NA/HEAST	
Beta-BHC	NA			NA/HEAST	
Dieldrin	NA			NA/HEAST	
Delta-BHC	NA			NA/HEAST	
Endosulfan I	NA			NA/HEAST	
Endosulfan II	NA			NA/HEAST	
Endosulfan Sulfate	NA			NA/HEAST	
Endrin	NA			NA/HEAST	
Endrin ketone	NA			NA/HEAST	
Gamma-BHC	NA			NA/HEAST	
Gamma-chlordane	NA			NA/HEAST	
Heptachlor	NA			NA/HEAST	
Heptachlor epoxide	NA			NA/HEAST	
Methoxychlor	NA			NA/HEAST	
Toxaphene	NA			NA/HEAST	
PCB's					
Arocior-1016	NA			NA/HEAST	
Arocior-1221	NA			NA/HEAST	
Arocior-1232	NA			NA/HEAST	
Arocior-1242	NA			NA/HEAST	
Arocior-1248	NA			NA/HEAST	
Arocior-1254	NA			NA/HEAST	
Arocior-1260	NA			NA/HEAST	

a : The oral Rfd was used when an inhalation value was not available
b : Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

TABLE F.1-3
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC - CHRONIC EFFECTS: ORAL

COMPOUND NAME	CHRONIC RFD (ORAL) (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	ORAL RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
INORGANICS					
Aluminum	NA			NA/IRIS,HEAST	
Antimony	4E-04	Low	Longevity,blood glucose and cholesterol	Water/IRIS,HEAST	UF = 1000; MF = 1
Arsenic	1E-03		Keratosis and hyperpigmentation	Diet/HEAST	UF = 1
Barium	7E-02	Medium	None observed	Water/IRIS	UF = 3; MF = 1
Beryllium	5E-03	Low	None observed	Water/IRIS,HEAST	UF = 100; MF = 1
Cadmium	1E-03	High	Proteinuria	Diet/IRIS,HEAST	UF = 10; MF = 1
Calcium	NA			NA/IRIS,HEAST	
Chromium VI	5E-03	Low	No effects observed	Water/IRIS,HEAST	UF = 500; MF = 1
Cobalt	NA			NA/IRIS,HEAST	
Copper	4E-02		Local GI irritation	NA/HEAST	UF = NA
Cyanide	2E-02	Medium	Weight loss,thyroid effects,myelin degeneration	Diet/IRIS	UF = 100; MF = 5
Iron	NA			NA/IRIS,HEAST	
Lead	NA		Neurobehavioral effects	NA/IRIS,HEAST	
Magnesium	NA			NA/IRIS,HEAST	
Manganese	1E-01	Medium	CNS effects	Diet/IRIS,HEAST	UF = 1; MF = 1
Mercury	3E-04		Kidney effects	Oral/HEAST	UF = 1000
Nickel	NA			NA/IRIS,HEAST	
Potassium	NA			NA/IRIS,HEAST	
Selenium	5E-03	Medium	Clinical selenosis	Diet/IRIS	UF = 3; MF = 1
Silver	3E-03	Medium	Argyria	Oral/IRIS,HEAST	UF = 2; MF = 1
Sodium	NA			IRIS,HEAST	
Thallium	7E-05		Increased SGOT and serum LDH levels,alopecia	Diet/HEAST	UF = 3000
Vanadium	7E-03		None observed	Water/HEAST	UF = 100
Zinc	2E-01		Anemia	Therap./HEAST	UF = 10
VOLATILES					
1,1-Dichloroethane	1E-01		None observed	Inhal./HEAST	UF = 1000
1,1-Dichloroethene	9E-03	Medium	Hepatic lesions	Water/IRIS	UF = 1000; MF = 1
1,1,1-Trichloroethane	9E-02	Medium	No adverse effect	Inhal./IRIS	UF = 1000; MF = 1
1,1,2-Trichloroethane	4E-03	Medium	Clinical serum chemistry	Water/IRIS	UF = 1000; MF = 1
1,1,2,2-Tetrachloroethane	NA			NA/IRIS,HEAST	
1,2-Dichloroethane	NA			NA/IRIS,HEAST	
1,2-Dichloroethene (cis)	1E-02		Decreased hematocrit and hemoglobin	Gavage/HEAST	UF = 3000
1,2-Dichloropropane	NA			NA/IRIS,HEAST	
1,3-Dichloropropene (Trans)	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF = 10,000; MF = 1
1,3-Dichloropropene (Cis)	3E-04	Low	Increased organ weight (kidney)	Diet/IRIS	UF = 10,000; MF = 1
2-Hexanone	NA			NA/IRIS,HEAST	
2-Butanone	5E-02	Medium	Fetotoxicity	Inhal./IRIS	UF = 1000
4-Methyl-2-Pentanone	5E-02		Liver and kidney effects	Gavage/HEAST	UF = 1000
Acetone	1E-01	Low	Increased liver and kidney weight	Gavage/IRIS	UF = 1000; MF = 1
Benzene	NA			NA/IRIS,HEAST	
Bromodichloromethane	2E-02	Medium	Renal cytomegaly	Gavage/IRIS	UF = 1000; MF = 1
Bromoform	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF = 1000; MF = 1
Bromomethane	1.4E-03		Hyperplasia of forestomach epithelium	HEAST	UF = 100
Carbon disulfide	1E-01	Medium	Fetal toxicity	Inhal./IRIS	UF = 100; MF = 1
Carbon tetrachloride	7E-04	Medium	Liver lesions	Gavage/IRIS	UF = 1000; MF = 1
Chlorobenzene	2E-02	Medium	Liver and kidney effects	Oral/IRIS,HEAST	UF = 1000
Chloroethane	NA			NA/IRIS,HEAST	
Chloromethane	NA			NA/IRIS,HEAST	
Chloroform	1E-02	Medium	Fatty cysts formation in liver	Oral/IRIS	UF = 1000; MF = 1
Dibromochloromethane	2E-02	Medium	Hepatic lesions	Gavage/IRIS	UF = 1000; MF = 1
Ethylbenzene	1E-01	Low	Liver and kidney toxicity	Oral/IRIS,HEAST	UF = 1000; MF = 1
Methylene chloride	6E-02	Medium	Liver toxicity	Water/IRIS	UF = 100; MF = 1
Styrene	2E-01	Medium	RBC and liver effects	Oral/IRIS	UF = 1000; MF = 1
Tetrachloroethene	1E-02	Medium	Hepatotoxicity,weight gain	Gavage/IRIS	UF = 100; MF = 1
Toluene	2E-01	Medium	Changes in liver and kidney weights	Gavage/IRIS	UF = 1000; MF = 1
Trichloroethene	NA			NA/IRIS,HEAST	
Vinyl acetate	1		No effect on body and kidney weight	Water/HEAST	UF = 100
Vinyl chloride	NA			NA/IRIS,HEAST	
Xylenes	2E+0	Medium	Hyperactivity,decreased body weight,increased mortality	Gavage/IRIS	UF = 100; MF = 1

(a) – Value derived from data for Gamma-Chlordane.
(b) – Value derived from data for Endosulfan (a mixture of Endosulfan I and II).
(c) – Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

TABLE F.1-3 (cont.)
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC - CHRONIC EFFECTS: ORAL

COMPOUND NAME	CHRONIC RFD (ORAL) (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	ORAL RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
SEMIVOLATILES					
1,2-Dichlorobenzene	9E-02	Low	No adverse effect observed	Oral/IRIS	UF=1000; MF=1
1,2,4-Trichlorobenzene	1.31E-03		Porphyria	HEAST	UF=1000
1,3-Dichlorobenzene	NA			NA/IRIS,HEAST	
1,4-Dichlorobenzene	NA			NA/IRIS,HEAST	
2-Chloronaphthalene	8E-02	Low	Dyspnea, liver enlargement	IRIS	UF=3000; MF=1
2-Chlorophenol	5E-03	Low	Reproductive effects	IRIS	UF=1000; MF=1
2-Methylnaphthalene	NA			NA/IRIS,HEAST	
2-Methylphenol	5E-02	Medium	Decreased body weights, neurotoxicity	Oral/IRIS	UF=1000; MF=1
2-Nitroaniline	NA			NA/IRIS,HEAST	
2-Nitrophenol	NA			NA/IRIS,HEAST	
2,4-Dichlorophenol	3E-03	Low	Changed hypersensitivity response	Water/IRIS	UF=100; MF=1
2,4-Dimethylphenol	2E-02	Low	Lethagy and prostration	Oral/IRIS	UF=3000; MF=1
2,4-Dinitrophenol	2E-03	Low	Cataract formation	Human/IRIS	UF=1000; MF=1
2,4-Dinitrotoluene	NA			NA/IRIS,HEAST	
2,4,5-Trichlorophenol	1E-01	Low	Liver and kidney pathology	Diet/IRIS	UF=1000; MF=1
2,4,6-Trichlorophenol	NA			NA/IRIS,HEAST	
2,6-Dinitrotoluene	NA			NA/IRIS,HEAST	
3-Nitroaniline	NA			NA/IRIS,HEAST	
3,3'-Dichlorobenzidine	NA			NA/IRIS,HEAST	
4-Bromophenyl-phenylether	NA			NA/IRIS,HEAST	
4-Chloro-3-methylphenol	NA			NA/IRIS,HEAST	
4-Chloroaniline	4E-03	Low	Nonneoplastic lesions of splenic capsule	Oral/IRIS	UF=3000; MF=1
4-Chlorophenyl-phenylether					
4-Methylphenol	5E-02		Reduced body weight gain, neurotoxicity	Oral/HEAST	UF=1000
4-Nitrophenol	NA			NA/IRIS,HEAST	
4-Nitrophenol					
4,6-dinitro-2-methylphenol					
Acenaphthene	6E-02	Low	Hepatotoxicity	Gavage/IRIS,HEAST	UF=3000; MF=1
Acenaphthylene	NA			NA/IRIS,HEAST	
Anthracene	3E-01	Low	No observed effects	Gavage/IRIS,HEAST	UF=3000; MF=1
Benzoic acid	4E+0	Medium		Oral/IRIS,HEAST	UF=1; MF=1
Benzo(a)anthracene	NA			NA/IRIS,HEAST	
Benzo(a)pyrene	NA			NA/IRIS,HEAST	
Benzo(b)fluoranthene	NA			NA/IRIS,HEAST	
Benzo(ghi)perylene	NA			NA/IRIS,HEAST	
Benzo(k)fluoranthene	NA			NA/IRIS,HEAST	
Benzyl alcohol	3E-01		Hyperplasia of the forestomach epithelium	Gavage/HEAST	UF=1000
Bis(2-ethylhexyl)phthalate	2E-02	Medium	Increased relative liver weight	Diet/IRIS,HEAST	UF=1000; MF=1
Bis(2-chloroethyl)ether	NA			NA/IRIS,HEAST	
Bis(2-chloroisopropyl)ether					
Butylbenzylphthalate	2E-01	Low	Effects on body weight gain, testes, liver, kidney	Diet/IRIS,HEAST	UF=1000; MF=1
Chrysene	NA			NA/IRIS,HEAST	
Dibenzofuran	NA			NA/IRIS,HEAST	
Dibenzo(a,h)anthracene	NA			NA/IRIS,HEAST	
Diethylphthalate	8E-01	Low	Decreased growth rate, food consumption rate and altered organ weights	Diet/IRIS	UF=1000, MF=1
Dimethylphthalate	1E+0		Minor effect on growth; nephritic involvement	Diet/HEAST	UF=100
Di-n-butylphthalate	1E-01	Low	Increased mortality	Diet/IRIS	UF=1000, MF=1
Di-n-octylphthalate	2E-02		Elevated kidney and weights, increased SGOT, SGPT	Diet/HEAST	UF=1000
Fluoranthene	4E-02	Low	Nephropathy, changes in liver weight, hematology alterations, clinical effects	Gavage/IRIS	UF=3000; MF=1
Fluorene	4E-02	Low	Neuropathy, liver and blood effects	Gavage/IRIS	UF=3000; MF=1
Hexachlorobenzene	8E-04	Medium	Liver effects	Diet/IRIS	UF=100; MF=1
Hexachlorobutadiene	2E-03	Low	Kidney toxicity	Diet/IRIS	UF=100; MF=1
Hexachlorocyclopentadiene	7E-03	Low	Stomach lesions	Gavage/IRIS	UF=1000, MF=1
Hexachloroethane	1E-03	Medium	Atrophy and degeneration of the renal tubes	Diet/IRIS	UF=1000, MF=1
Indeno(123cd)pyrene	NA			NA/IRIS,HEAST	
Isophorone	2E-01	Low	No observed effect	Oral/IRIS	UF=1000, MF=1
Naphthalene	4E-03 c		Decreased body weight gain	Gavage/HEAST	UF=10,000
Nitrobenzene	5E-04	Low	Hematologic, adrenal, renal and hepatic lesions	Inhal./IRIS,HEAST	UF=10,000
N-nitroso-di-n-propylamine	NA			NA/IRIS,HEAST	
N-nitrosodiphenylamine	NA			NA/IRIS,HEAST	
Pentachlorophenol	3E-02	Medium	Liver and kidney pathology	Diet/IRIS	UF=100; MF=1
Phenanthrene	NA			NA/IRIS,HEAST	
Phenol	6E-01	Low	Reduced fetal body weight	Gavage/IRIS	UF=100; MF=1
Pyrene	3E-02	Low	Kidney effects	Gavage/IRIS	UF=3000; MF=1
PESTICIDES					
4,4'-DDD	NA			NA/IRIS,HEAST	
4,4'-DDE	NA			NA/IRIS,HEAST	
4,4'-DDT	5E-04	Medium	Liver lesions	Diet/IRIS	UF=100; MF=1
Aldrin	3E-05	Medium	Liver toxicity	Diet/IRIS	UF=1000; MF=1
Alpha-BHC	NA			NA/IRIS,HEAST	
Alpha-chlordane	6E-05 (a)	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000; MF=1
Beta-BHC	NA			NA/IRIS,HEAST	
Dieldrin	5E-05	Medium	Liver lesions	Diet/IRIS	UF=100; MF=1
Delta-BHC	DI			NA/IRIS,HEAST	
Endosulfan I	5E-05 (b)	Medium	Kidney toxicity	Oral/IRIS	UF=3000; MF=1
Endosulfan II	5E-05 (b)	Medium	Kidney toxicity	Oral/IRIS	
Endosulfan Sulfate	NA			NA/IRIS,HEAST	
Endrin	3E-04	Medium	Histological lesions in liver, convulsions	Oral/IRIS	UF=100; MF=1
Endrin ketone	NA			NA/IRIS,HEAST	
Gamma-BHC	3E-04	Medium	Liver and kidney toxicity	Diet/IRIS	UF=1000; MF=1
Gamma-chlordane	6E-05	Low	Regional liver hypertrophy in females	Diet/IRIS	UF=1000; MF=1
Heptachlor	5E-04	Low	Liver weight increases in males	Diet/IRIS	UF=300; MF=1
Heptachlor epoxide	1.3E-5	Low	Increased liver to body weight ratio	Diet/IRIS	UF=1000; MF=1
Methoxychlor	5E-03	Low	Excessive loss of litters	Diet/IRIS	UF=1000; MF=1
Toxaphene	NA			NA/IRIS,HEAST	
PCB's					
Aroclor-1016	NA			Na/IRIS,HEAST	
Aroclor-1221	NA			Na/IRIS,HEAST	
Aroclor-1232	NA			Na/IRIS,HEAST	
Aroclor-1242	NA			Na/IRIS,HEAST	
Aroclor-1248	NA			Na/IRIS,HEAST	
Aroclor-1254	NA			Na/IRIS,HEAST	
Aroclor-1260	NA			NA/IRIS,HEAST	

(a) - Value derived from data for Gamma-Chlordane.
(b) - Value derived from data for Endosulfan (a mixture of Endosulfan I and II).
(c) - Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

TABLE F.1-4
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC - SUBCHRONIC EFFECTS: ORAL

COMPOUND NAME	SUBCHRONIC RFD (ORAL) (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	ORAL RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
INORGANICS					
Aluminum	NA			NA/IRIS,HEAST	
Antimony	4E-04		Reduced life span,altered blood chemistry	Water/HEAST	UF = 1000
Arsenic	1E-03		Keratosis and hyperpigmentation	NA/HEAST	UF = 1
Barium	5E-02		Increased blood pressure	Water/HEAST	UF = 100
Beryllium	5E-03		None observed	Water/HEAST	UF = 100
Cadmium	NA			NA/HEAST	
Calcium	NA			NA/HEAST	
Chromium VI	2E-02		Not defined	Water/HEAST	UF = 100
Cobalt	NA			NA/HEAST	
Copper	1.3mg/l (0.04)		Local GI irritation	NA/HEAST	UF = NA
Cyanide	2E-02		Weight loss, thyroid effects,myelin degeneration	Diet/HEAST	UF = 500
Iron	NA				
Lead	NA			NA/HEAST	
Magnesium	NA			NA/HEAST	
Manganese	1E-01		No effect	Occupational/HEAST	UF = 1
Mercury	3E-04		Kidney effects	Oral/HEAST	UF = 1000
Nickel (soluble salts)	2E-02		Decreased body and organ weight	Diet/HEAST	UF = 300
Potassium	NA			NA/HEAST	
Selenium	NA			NA/HEAST	
Silver	3E-03		Argyria	HEAST	UF = 2
Sodium	NA			NA/HEAST	
Thallium	7E-04		Increased SGOT and serum LDH levels,alopecia	HEAST	UF = 300
Vanadium	7E-03		None observed	Water/HEAST	UF = 100
Zinc	2E-01		Anemia	Therapeutic/HEAST	UF = 10
VOLATILES					
1,1-Dichloroethane	1E+00		None	HEAST	UF = 100
1,1-Dichloroethene	9E-03		Liver lesions	Water/HEAST	UF = 1000
1,1,1-Trichloroethane	9E-01		Hepatotoxicity	HEAST	UF = 100
1,1,2-Trichloroethane	4E-02		Clinical chemistry alterations	Water/HEAST	UF = 100
1,1,2,2-Tetrachloroethane	NA			NA/HEAST	
1,2-Dichloroethane	NA			NA/HEAST	
1,2-Dichloroethene(cis)	1E-01		Decreased hematocrit and hemoglobin	Gavage/HEAST	UF = 300
1,2-Dichloropropane	NA			HEAST	
1,3-Dichloropropene (Trans)	3E-03		Increased organ weight	Diet/HEAST	UF = 1000
1,3-Dichloropropene (Cis)	3E-03		Increased organ weight	Diet/HEAST	UF = 1000
2-Hexanone	NA			HEAST	
2-Butanone	6E-01		Fetotoxicity	HEAST	UF = 100
4-Methyl-2-Pentanone	5E-01		Liver and kidney effects	Gavage/HEAST	UF = 100
Acetone	1E+00		Increased liver and kidney weights,nephrotoxicity	Gavage/HEAST	UF = 100
Benzene	NA			NA/HEAST	
Bromodichloromethane	2E-02		Renal cytomegaly	Gavage/HEAST	UF = 1000
Bromoform	2E-01		Liver effects	Gavage/HEAST	UF = 100
Bromomethane	1.4E-02		Hyperplasia of forestomach epithelium	HEAST	UF = 100
Carbon Disulfide	1E-01		Fetal toxicity, malformation	Inhalation/HEAST	UF = 100
Carbon tetrachloride	7E-03		Liver lesions	HEAST	UF = 100
Chlorobenzene	2E-01		Liver and kidney effects	Oral/HEAST	UF = 100
Chloroethane	NA			NA/IRIS,HEAST	
Chloromethane	NA			NA/IRIS,HEAST	
Chloroform	1E-02		Liver lesions	HEAST	UF = 1000
Dibromochloromethane	2E-01		Liver lesions	Gavage/HEAST	UF = 100
Ethylbenzene	1		Hepatotoxicity, nephrotoxicity	Oral/HEAST	UF = 100
Methylene chloride	6E-02		Liver toxicity	Water/HEAST	UF = 100
Styrene	2		RBC and liver effects	Gavage/HEAST	UF = 100
Tetrachloroethene	1E-01		Hepatotoxicity	Gavage/HEAST	UF = 100
Toluene	2E+00		Changes in liver and kidney weight	HEAST	UF = 100
Trichloroethene	NA			NA/HEAST	
Vinyl acetate	1		No effect on body and kidney weight	Water/HEAST	UF = 100
Vinyl chloride	NA			NA/HEAST	
Xylenes	4E+00		None observed	HEAST	UF = 100

DI: Data inadequate for quantitative risk assessment
NA: Not available
ND: Not determined
a: Oral value has been placed where no inhalation value exists.
(b) – Value derived from data for Gamma-Chlordane.
(c) – Value derived from data for Endosulfan I.

TABLE F.1-4 (cont.)
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH NONCARCINOGENIC - SUBCHRONIC EFFECTS: ORAL

COMPOUND NAME	SUBCHRONIC RFD (ORAL) (mg/kg/day)	CONFIDENCE LEVEL	CRITICAL EFFECT	ORAL RFD BASIS/ SOURCE	UNCERTAINTY AND MODIFYING FACTORS
SEMIVOLATILES					
1,2-Dichlorobenzene	9E-01		Liver effects	HEAST	UF = 100
1,2,4-Trichlorobenzene	1.31E-01		Porphyria	HEAST	UF = 100
1,3-Dichlorobenzene	NA			NA/HEAST	
1,4-Dichlorobenzene	NA			NA/HEAST	
2-Chloronapthalene	NA			NA/HEAST	
2-Chlorophenol	5E-03		Reproductive effects	Water/HEAST	UF = 1000
2-Methylnaphthalene	NA			NA/HEAST	
2-Methylphenol	5E-01		Reduced body weight gain, neurotoxicity	HEAST	UF = 100
2-Nitroaniline	NA			NA/HEAST	
2-Nitrophenol	NA			NA/HEAST	
2,4-Dichlorophenol	3E-03		Immune function	Water/HEAST	UF = 100
2,4-Dimethylphenol	2E-01		Neurological signs, hematological changes	Gavage/HEAST	UF = 300
2,4-Dinitrophenol	2E-03		Cataract	Therapeutic/HEAST	UF = 1000
2,4-Dinitrotoluene	NA			NA/HEAST	
2,4,5-Trichlorophenol	1		Hepatotoxicity and kidney effects	Diet/IRIS	UF = 100
2,4,6-Trichlorophenol	NA			NA/HEAST	
2,6-Dinitrotoluene	NA			NA/HEAST	
3-Nitroaniline	NA			NA/HEAST	
3,3'-Dichlorobenzidine	NA			NA/HEAST	
4-Bromophenyl-phenylether	NA			NA/HEAST	
4-Chloro-3-methylphenol	NA			NA/HEAST	
4-Chloroaniline	4E-03		Proliferative lesions of the spleen	Diet/HEAST	UF = 3000
4-Chlorophenyl-phenylether					
4-Methylphenol	5E-01		Decreased body weight gain, neurotoxicity	HEAST	UF = 100
4-Nitrophenol	NA			NA/HEAST	
4-Nitrophenol					
4,6-dinitro-2-methylphenol					
Acenaphthene	6E-01		Hepatotoxicity	Gavage/HEAST	UF = 300
Acenaphthylene	NA			NA/HEAST	
Anthracene	3E+00		No observed effects	Gavage/HEAST	UF = 300
Benzoic acid	4E+00		Irritation, malaise	Diet/HEAST	UF = 1
Benzo(a)anthracene	NA			NA/HEAST	
Benzo(a)pyrene	NA			NA/HEAST	
Benzo(b)fluoranthene	NA			NA/HEAST	
Benzo(g,h,i)perylene	NA			NA/HEAST	
Benzo(k)fluoranthene	NA			NA/HEAST	
Benzyl alcohol	1E+00		Decreased body weight	Gavage/HEAST	UF = 1000
Bis(2ethylhexyl)phthalate	2E-02		Increased relative liver weight	Diet/HEAST	UF = 1000; MF = 1
Bis(2-chloroethyl)ether	NA			NA/HEAST	
Bis(2-chloroisopropyl)ether	4E-02		Decreased hemoglobin; erythrocyte destruction	Diet/HEAST	UF = 1000
Butylbenzylphthalate	2E+00		Effects on body weight gain,testes,liver	Diet/HEAST	UF = 100
Chrysene	NA			NA/HEAST	
Dibenzofuran	NA			NA/HEAST	
Dibenzo(a,h)anthracene	NA			NA/HEAST	
Diethylphthalate	8		Reduced terminal body weight	Diet/HEAST	UF = 100
Dimethylphthalate	1E+00		Minor effect on growth,some nephritic involvement	Diet/HEAST	UF = 100
Di-n-butylphthalate	1E+00		Mortality	Diet/HEAST	UF = 100
Di-n-octylphthalate	2E-02		Elevated kidney and liver weight,increased,SGOT,SGPT	Diet/HEAST	UF = 1000
Fluoranthene	4E-01		Nephropathy, liver weight changes, Hematological changes	Gavage/HEAST	UF = 300
Fluorene	4E-01		Hematological changes	Gavage/HEAST	UF = 300
Hexachlorobenzene	8E-04		Liver and hematologic effects	Diet/HEAST	UF = 100
Hexachlorobutadiene	2E-03		Kidney toxicity	Diet/HEAST	UF = 100
Hexachlorocyclopentadiene	7E-02		Forestomach lesions	HEAST	UF = 100
Hexachloroethane	1E-02		Kidney degeneration	Diet/HEAST	UF = 100
Indeno(1,2,3-c,d)pyrene	NA			NA/HEAST	
Isophorone	2E+00		Kidney lesions	Oral/HEAST	UF = 100
Naphthalene	4E-02 c		Decreased body weight gain	Gavage/HEAST	UF = 1000
Nitrobenzene	5E-03		Hematological,adrenal,renal and hepatic lesions	HEAST	UF = 1000
N-nitroso-di-n-propylamine	NA			NA/HEAST	
N-nitrosodiphenylamine	NA			NA/HEAST	
Pentachlorophenol	3E-02		Fetotoxicity	Gavage/HEAST	UF = 100
Phenanthrene	NA			NA/HEAST	
Phenol	6.0E-01		Reduced fetal body weight	Gavage/HEAST	UF = 100
Pyrene	3E-01		Renal effects	Gavage/HEAST	UF = 300
PESTICIDES					
4,4'-DDD	NA			NA/HEAST	
4,4'-DDE	NA			NA/HEAST	
4,4'-DDT	5E-04		Liver lesions	Diet/HEAST	UF = 100
Aldrin	3E-05		Liver lesions	Diet/HEAST	UF = 1000
Alpha-BHC	NA			NA/HEAST	
Alpha-chlordane	6E-05 (a)				
Beta-BHC	NA			NA/HEAST	
Dieldrin	5E-05		Liver lesions	Diet/HEAST	UF = 100
Delta-BHC	NA			NA/HEAST	
Endosulfan I	2E-04 (b)		Mild kidney lesions	Diet/HEAST	UF = 1000
Endosulfan II	2E-04 (b)		Mild kidney lesions	Diet/HEAST	UF = 1000
Endosulfan Sulfate	NA			NA/HEAST	
Endrin	5E-04		Increased relative organ weights	Diet/HEAST	UF = 100
Endrin ketone	NA			NA/HEAST	
Gamma-BHC	3E-03		Liver and kidney toxicity	Diet/HEAST	UF = 100
Gamma-chlordane	6E-05		Liver necrosis	Diet/HEAST	UF = 1000
Heptachlor	5E-04		Increased liver weight	Diet/HEAST	UF = 300
Heptachlor epoxide	NA			NA/HEAST	
Methoxychlor	5E-03		Excessive loss of litters	HEAST	UF = 1000
Toxaphene	NA			NA/HEAST	
PCB's					
Aroclor-1016	NA			NA/HEAST	
Aroclor-1221	NA			NA/HEAST	
Aroclor-1232	NA			NA/HEAST	
Aroclor-1242	NA			NA/HEAST	
Aroclor-1248	NA			NA/HEAST	
Aroclor-1254	NA			NA/HEAST	
Aroclor-1260	NA			NA/HEAST	

DI: Data inadequate for quantitative risk assessment
NA: Not available
ND: Not determined
a: Oral value has been placed where no inhalation value exists.
(b) - Value derived from data for Gamma-Chlordane.
(c) - Value derived from data for Endosulfan I.

TABLE F.1-5
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH CARCINOGENIC EFFECTS: ORAL

COMPOUND NAME	SLOPE FACTOR (SF) ORAL (mg/kg/day)-1	WEIGHT-OF EVIDENCE CLASS	TYPE OF CANCER	SF BASIS/ SOURCE
INORGANICS				
Aluminum	NA	D		NA/IRIS,HEAST
Antimony	NA			NA/IRIS,HEAST
Arsenic	1.75	A	Skin	IRIS
Barium	NA			NA/IRIS,HEAST
Beryllium	4.3E+0	B2	gross tumors, all sites combined	Water/IRIS
Cadmium	NA			NA/IRIS,HEAST
Calcium	NA			NA/IRIS,HEAST
Chromium VI	NA			NF/IRIS,HEAST
Cobalt	NA	D		NA/IRIS,HEAST
Copper	NA	D		NA/IRIS,HEAST
Cyanide	NA	D		NA/IRIS,HEAST
Iron	NA			NA/IRIS,HEAST
Lead	NA	B2	Renal tumors	Oral/IRIS
Magnesium	NA			NA/IRIS,HEAST
Manganese	NA	D		NA/IRIS,HEAST
Mercury	NA	D		NA/IRIS,HEAST
Nickel	NA			NA/IRIS,HEAST
Potassium	NA			NA/IRIS,HEAST
Selenium	NA	D		NA/IRIS,HEAST
Silver	NA	D		NA/IRIS,HEAST
Sodium	NA			NA/IRIS,HEAST
Thallium	NA			NA/IRIS,HEAST
Vanadium	NA			NA/IRIS,HEAST
Zinc	NA			NA/IRIS,HEAST
VOLATILES				
1,1-Dichloroethane	NA	C	Mammary gland,hemangiosarcoma,liver	NA/IRIS,HEAST
1,1-Dichloroethene	6E-01	C	Adrenal pheochromocytomas	Oral/IRIS
1,1,1-Trichloroethane	NA	D		NA/IRIS,HEAST
1,1,2-Trichloroethane	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS
1,1,2,2-Tetrachloroethane	2.0E-1	C	Hepatocellular carcinoma	Gavage/IRIS
1,2-Dichloroethane	9.1E-02	B2	Hemangiosarcoma	Gavage/IRIS
1,2-Dichloroethene	NA			NA/IRIS,HEAST
1,2-Dichloropropane	6.8E-02	B2	liver	Gavage/HEAST
1,3-Dichloropropene (Trans)	1.8E-01	B2	Forestomach,liver,adrenal,thyroid	Gavage/HEAST
1,3-Dichloropropene (Cis)	1.8E-01	B2	Forestomach,liver,adrenal,thyroid	Gavage/HEAST
2-Hexanone	NA			NA/IRIS,HEAST
2-Butanone	NA	D		NA/IRIS,HEAST
4-Methyl-2-Pentanone	NA			NA/IRIS,HEAST
Acetone	NA	D		NA/IRIS,HEAST
Benzene	2.9E-02	A	Leukemia	Occupational/IRIS
Bromodichloromethane	1.3E-01	B2	Hepatocellular carcinoma	Gavage/IRIS
Bromoform	7.9E-03	B2	Neoplastic lesions in large intestine	Gavage/IRIS
Bromomethane	NA	B2		NA/IRIS,HEAST
Carbon disulfide	NA			NA/IRIS,HEAST
Carbon tetrachloride	1.3E-01	B2	Hepatocellular carcinomas	Oral/IRIS
Chlorobenzene	NA	D		NA/IRIS,HEAST
Chloroethane	1.9	A	Lung	Diet/HEAST
Chloromethane	1.3E-2	C	Kidney	Inhalation/HEAST
Chloroform	6.1E-03	B2	Kidney tumors	Oral/IRIS
Dibromochloromethane	8.4E-02	C	Hepatocellular adenoma or carcinoma	Gavage/IRIS
Ethylbenzene	NA	D		NA/IRIS,HEAST
Methylene chloride	7.5E-03	B2	Heptacellular carcinomas, neoplastic nodules	Water/IRIS
Styrene	3E-02	B2	Lung and bronchi	Gavage/HEAST
Tetrachloroethene	5.1E-02	B2	Liver	Gavage/HEAST
Toluene	NA	D		NA/IRIS,HEAST
Trichloroethene	1.1E-02	B2	Liver	Gavage/HEAST
Vinyl acetate	NA			NA/IRIS,HEAST
Vinyl chloride	1.9	A	Lung	Diet/HEAST
Xylenes	NA	D		NA/IRIS,HEAST

(a) - Value derived from data for benzo(a)pyrene.
(b) - Value derived from data for Gamma-Chlordane.
(c) - Value derived from data for Aroclor-1260.

TABLE F.1-5 (cont.)
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH CARCINOGENIC EFFECTS: ORAL

COMPOUND NAME	SLOPE FACTOR (SF) ORAL (mg/kg/day)-1	WEIGHT-OF EVIDENCE CLASS	TYPE OF CANCER	SF BASIS/ SOURCE
SEMIVOLATILES				
1,2-Dichlorobenzene	NA			NA/IRIS,HEAST
1,2,4-Trichlorobenzene	NA			NA/IRIS,HEAST
1,3-Dichlorobenzene	NA	D		NA/IRIS,HEAST
1,4-Dichlorobenzene	2.4E-02	C	Liver	Gavage/HEAST
2-Chloronapthalene	NA			NA/IRIS,HEAST
2-Chlorophenol	NA			NA/IRIS,HEAST
2-Methylnaphthalene	NA			NA/IRIS,HEAST
2-Methylphenol	NA	C		NA/IRIS,HEAST
2-Nitroaniline	NA			NA/IRIS,HEAST
2-Nitrophenol	NA			NA/IRIS,HEAST
2,4-Dichlorophenol	NA			NA/IRIS,HEAST
2,4-Dimethylphenol	NA			NA/IRIS,HEAST
2,4-Dinitrophenol	NA			NA/IRIS,HEAST
2,4-Dinitrotoluene	6.8E-01	B2	Liver, mammary gland	Diet/IRIS
2,4,5-Trichlorophenol	NA			NA/IRIS,HEAST
2,4,6-Trichlorophenol	1.1-02	B2	Leukemia	Diet/IRIS
2,6-Dinitrotoluene	6.8E-01	B2	Hepatocellular carcinomas, mammary gland	Diet/IRIS
3-Nitroaniline	NA			NA/IRIS,HEAST
3,3'-Dichlorobenzidine	4.5E-01	B2	Mammary adenocarcinomas	Water/IRIS
4-Bromophenyl-phenylether		D		IRIS
4-Chloro-3-methylphenol	NA			NA/IRIS,HEAST
4-Chloroaniline	NA			NA/IRIS,HEAST
4-Chlorophenyl-phenylether				
4-Methylphenol	NA			NA/IRIS,HEAST
2-Nitrophenol	NA			NA/IRIS,HEAST
4-Nitrophenol	NA			NA/IRIS,HEAST
4,6-dinitro-2-methylphenol	NA			NA/IRIS,HEAST
Acenaphthene	NA			NA/IRIS,HEAST
Acenaphthylene	NA	D		NA/IRIS,HEAST
Anthracene	NA	D		NA/IRIS,HEAST
Benzoic acid	NA			NA/IRIS,HEAST
Benzo(a)anthracene	11.5(a)	B2	Liver, lung, skin	IRIS
Benzo(a)pyrene	11.5	B2	Stomach, lung	IRIS
Benzo(b)fluoranthene	11.5(a)	B2	Lung, thorax, skin	IRIS
Benzo(ghi)perylene	NA	D		NA/IRIS,HEAST
Benzo(k)fluoranthene	11.5(a)	B2	Lung, thorax, skin	IRIS
Benzyl alcohol	NA			NA/IRIS,HEAST
Bis(2-ethylhexyl)phthalate	1.4E-2	B2	Liver	IRIS
Bis(2-chloroethyl)ether	1.1	B2	Liver	Gavage/IRIS
Bis(2-chloroisopropyl)ether	NA			NA/IRIS,HEAST
Butylbenzylphthalate	NA	C	Leukemia	Diet/IRIS
Chrysene	11.5(a)	B2	Malignant lymphoma	IRIS
Dibenzofuran	NA	D		NA/IRIS,HEAST
Dibenzo(a,h)anthracene	11.5(a)	B2	Lung, Mammary	IRIS
Diethylphthalate	NA	D		NA/IRIS,HEAST
Dimethylphthalate	NA	D		NA/IRIS,HEAST
Di-n-butylphthalate	NA	D		NA/IRIS,HEAST
Di-n-octylphthalate	NA	D		NA/IRIS,HEAST
Fluoranthene	NA	D		NA/IRIS,HEAST
Fluorene	NA	D		NA/IRIS,HEAST
Hexachlorobenzene	1.6	B2	Heptocelluler Carcinomas	Diet/IRIS
Hexachlorobutadiene	7.8E-2	C	Renal Tubular Adenomas and Adenocarcinoma	Diet/IRIS
Hexachlorocyclopentadiene	NA	D		IRIS,HEAST
Hexachloroethane	1.4E-2	C	Heptocelluler Carcinomas	Gavage/IRIS
Indeno(123cd)pyrene	11.5(a)	B2	Lung, skin	IRIS
Isophorone	4.1E-03	C	Preputial gland carcinomas and kidney tumors	Gavage/IRIS
Naphthalene	NA	D		NA/IRIS,HEAST
Nitrobenzene	NA	D		NA/IRIS,HEAST
N-nitroso-di-n-propylamine	7	B2	Hepatocellular carcinomas	Water/IRIS
N-nitrosodiphenylamine	4.9E-03	B2	Trasitional cell carcinoma of the bladder	Diet/IRIS
Pentachlorophenol	1.2E-01	B2	Hepatocellular adenoma, carcinomas,pheochromocytoma malignant pheosarcoma,hemangiosarcoma,hemangioma	Oral/IRIS
Phenanthrene	NA	D		NA/IRIS,HEAST
Phenol	NA	D		NA/IRIS,HEAST
Pyrene	NA	D		NA/IRIS,HEAST
PESTICIDES				
4,4'-DDD	2.4E-01	B2	Liver tumor	Oral/IRIS
4,4'-DDE	3.4E-01	B2	Hepatocellular carcinoma	Diet/IRIS
4,4'-DDT	3.4E-01	B2	Liver tumor	Diet/IRIS
Aldrin	17	B2	Liver carcinoma	Oral/IRIS
Alpha-BHC	6.3	B2	Hepatocellular carcinoma	Diet/IRIS
Alpha-chlordane	1.3 (b)	B2	Hepatocellular carcinoma	Diet/IRIS
Beta-BHC	1.8	C	Hepatic nodules	Diet/IRIS
Deildrin	16	B2	Liver carcinomas	Oral/IRIS
Delta-BHC	NA			NA/IRIS,HEAST
Endosulfan I	NA			NA/IRIS,HEAST
Endosulfan II	NA			Na/IRIS,HEAST
Endosulfan Sulfate	NA			Na/IRIS,HEAST
Endrin	NA	D		NA/IRIS,HEAST
Endrin ketone	NA			Na/IRIS,HEAST
Gamma-BHC	1.3	B2-C	Liver	Diet/HEAST
Gamma-chlordane	1.3	B2	Hepatocellular carcinoma	Diet/IRIS
Heptachlor	4.5	B2	Hepatocellular carcinoma	Diet/IRIS
Heptachlor epoxide	9.1	B2	Hepatocellular carcinoma	Diet/IRIS
Methoxychlor	NA	D		NA/IRIS,HEAST
Toxaphene	1.1	B2	Hepatocellular carcinomas and neoplastic nodules	Diet/IRIS
PCB's				
Aroclor-1016	7.7E+0(c)			
Aroclor-1221	7.7E+0(c)			
Aroclor-1232	7.7E+0(c)			
Aroclor-1242	7.7E+0(c)			
Aroclor-1248	7.7E+0(c)			
Aroclor-1254	7.7E+0(c)			
Aroclor-1260	7.7E+0	B2	Liver	Diet/IRIS,HEAST

(a) - Value derived from data for benzo(a)pyrene.
(b) - Value derived from data for Gamma-Chlordane.
(c) - Value derived from data for Aroclor-1260.

TABLE F.1-6
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH CARCINOGENIC EFFECTS: INHALATION

COMPOUND NAME	SLOPE FACTOR INHALATION (MG/KG/DAY)-1	WEIGHT-OF-EVIDENCE CLASSIFICATION	TYPE OF CANCER	SF BASIS/ SOURCE
INORGANICS				
Aluminum	NA			NA/IRIS,HEAST
Antimony	NA			NA/IRIS,HEAST
Arsenic	5E+01	A	Respiratory Tract	Occupational/IRIS
Barium	NA			NA/IRIS,HEAST
Beryllium	8.4E+00	B2	Lung	Occupational/IRIS
Cadmium	6.3	B1	Respiratory Tract	Occupational/IRIS
Calcium	NA			NA/IRIS,HEAST
Chromium (VI)	4.2E+01	A	Lung	Occupational/IRIS
Cobalt	NA	D		NA/IRIS,HEAST
Copper	NA	D		NA/IRIS,HEAST
Cyanide	NA	D		NA/IRIS,HEAST
Iron	NA			NA/IRIS,HEAST
Lead	NA	B2		NA/IRIS,HEAST
Magnesium	NA			NA/IRIS,HEAST
Manganese	NA	D		NA/IRIS,HEAST
Mercury	NA	D		NA/IRIS,HEAST
Nickel	8.4E-01	A	Lung and nasal tumors	Occupational/IRIS
Potassium	NA			NA/IRIS,HEAST
Selenium	NA	D		NA/IRIS,HEAST
Silver	NA	D		NA/IRIS,HEAST
Sodium	NA			NA/IRIS,HEAST
Thallium	NA			NA/IRIS,HEAST
Vanadium	NA			NA/IRIS,HEAST
Zinc	NA			NA/IRIS,HEAST
VOLATILES				
1,1-Dichloroethane	NA	C	Mammary gland, liver	IRIS,HEAST
1,1-Dichloroethene	1.8E-01	C	Kidney, adenocarcinoma	IRIS,HEAST
1,1,1-Trichloroethane	NA	D		NA/IRIS,HEAST
1,1,2-Trichloroethane	5.7E-02	C	Hepatocellular carcinoma	Gavage/IRIS
1,1,2,2-Tetrachloroethane	2.0E-01	C	Hepatocellular carcinoma	Gavage/IRIS
1,2-Dichloroethane	9.1E-02	B2	Hemagiosarcoma	Gavage/IRIS
1,2-Dichloroethene	NA			NA/IRIS,HEAST
1,2-Dichloropropane	NA	B2		NA/IRIS,HEAST
1,3-Dichloropropene (Trans)	1.3E-01	B2	Lung	Inhalation/HEAST
1,3-Dichloropropene (Cis)	1.3E-01	B2	Lung	Inhalation/HEAST
2-Hexanone	NA			NA/IRIS,HEAST
2-Butanone	NA	D		NA/IRIS,HEAST
4-Methyl-2-Pentanone	NA			NA/IRIS,HEAST
Acetone	NA	D		NA/IRIS,HEAST
Benzene	2.9E-02	A	Leukemia	Occupational/IRIS
Bromodichloromethane	NA	B2		NA/IRIS,HEAST
Bromoform	3.9E-03	B2	Intestinal neoplastic lesions	Gavage/IRIS
Bromomethane	NA			NA/IRIS,HEAST
Carbon disulfide	NA			NA/IRIS,HEAST
Carbon tetrachloride	1.3E-01	B2	Liver	Gavage/HEAST
Chlorobenzene	NA			NA/IRIS,HEAST
Chloroethane	NA			NA/IRIS,HEAST
Chloromethane	6E-03	C	Kidney	Inhalation/HEAST
Chloroform	8.1E-02	B2	Liver	IRIS
Dibromochloromethane	NA			NA/IRIS,HEAST
Ethylbenzene	NA	D		NA/IRIS,HEAST
Methylene chloride	1.6E-03	B2	Combined adenomas and carcinomas	IRIS
Styrene	2.0E-3	B2	Leukemia	HEAST
Tetrachloroethene	1.8E-03	B2	Leukemia, liver	HEAST
Toluene	NA	D		NA/IRIS,HEAST
Trichloroethene	1.7E-02	B2	Lung	HEAST
Vinyl acetate	NA			NA/IRIS,HEAST
Vinyl chloride	3E-01	A	Liver	Inhalation/HEAST
Xylenes	NA	D		NA/IRIS,HEAST

a : The oral Rfd was used when an inhalation value was not available
b : Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

TABLE F.1-6 (cont.)
SUMMARY OF TOXICITY VALUES ASSOCIATED WITH CARCINOGENIC EFFECTS: INHALATION

COMPOUND NAME	SLOPE FACTOR INHALATION (MG/KG/DAY)-1	WEIGHT-OF-EVIDENCE CLASSIFICATION	TYPE OF CANCER	SF BASIS/ SOURCE
SEMIVOLATILES				
1,2-Dichlorobenzene	NA			NA/IRIS,HEAST
1,2,4-Trichlorobenzene	NA			NA/IRIS,HEAST
1,3-Dichlorobenzene	NA	D		IRIS
1,4-Dichlorobenzene	NA	C	Liver	HEAST
2-Chloronaphthalene	NA			NA/IRIS,HEAST
2-Chlorophenol	NA			NA/IRIS,HEAST
2-Methylnaphthalene	NA			NA/IRIS,HEAST
2-Methylphenol	NA			NA/IRIS,HEAST
2-Nitroaniline	NA			NA/IRIS,HEAST
2-Nitrophenol	NA			NA/IRIS,HEAST
2,4-Dichlorophenol	NA			NA/IRIS,HEAST
2,4-Dimethylphenol	NA			NA/IRIS,HEAST
2,4-Dinitrophenol	NA			NA/IRIS,HEAST
2,4-Dinitrotoluene	NA	B2	Liver, mammary	IRIS
2,4,5-Trichlorophenol	NA			NA/IRIS,HEAST
2,4,6-Trichlorophenol	9E-04	B2	Leukemia	IRIS
2,6-Dinitrotoluene	NA	B2	Liver, mammary	NA/IRIS,HEAST
3-Nitroaniline	NA			NA/IRIS,HEAST
3,3'-Dichlorobenzidine	NA	B2		NA/IRIS,HEAST
4-Bromophenyl-phenylether	NA			NA/IRIS,HEAST
4-Chloro-3-methylphenol	NA			NA/IRIS,HEAST
4-Chloroaniline	NA			NA/IRIS,HEAST
4-Chlorophenyl-phenylether	NA			NA/IRIS,HEAST
4-Methylphenol	NA	C		NA/IRIS,HEAST
4-Nitroaniline	NA			NA/IRIS,HEAST
4-Nitrophenol	NA			NA/IRIS,HEAST
4,6-dinitro-2-methylphenol	NA			NA/IRIS,HEAST
Acenaphthene	NA			NA/IRIS,HEAST
Acenaphthylene	NA	D		NA/IRIS,HEAST
Anthracene	NA	D		NA/IRIS,HEAST
Benzoic acid	NA	D		NA/IRIS,HEAST
Benzo(a)anthracene	6.1 (a)	B2	Liver, lung, skin	IRIS
Benzo(a)pyrene	6.1	B2	Respiratory tract, stomach	Inhalation/HEAST
Benzo(b)fluoranthene	6.1 (a)	B2	Lung, thorax, skin	IRIS
Benzo(ghi)perylene	NA	D		NA/IRIS,HEAST
Benzo(k)fluoranthene	6.1 (a)	B2	Lung, thorax, skin	IRIS
Benzyl alcohol	NA			NA/IRIS,HEAST
Bis(2-chloroethyl)ether	1.1	B2	Liver	Oral/HEAST
Bis(2-chloroisopropyl)ether	NA			NA/IRIS,HEAST
Bis(2-ethylhexyl)phthalate	NA	B2		NA/IRIS,HEAST
Butylbenzylphthalate	NA	C		NA/IRIS,HEAST
Chrysene	6.1 (a)	B2	Malignant lymphoma	IRIS
Dibenzofuran	NA	D		NA/IRIS,HEAST
Dibenzo(a,h)anthracene	6.1 (a)	B2	Lung, mammary	IRIS
Diethylphthalate	NA	D		NA/IRIS,HEAST
Dimethylphthalate	NA	D		NA/IRIS,HEAST
Di-n-butylphthalate	NA	D		NA/IRIS,HEAST
Di-n-octylphthalate	NA	D		NA/IRIS,HEAST
Fluoranthene	NA	D		NA/IRIS,HEAST
Fluorene	NA	D		NA/IRIS,HEAST
Hexachlorobenzene	1.6	B2	Hepatocellular carcinoma	Oral/IRIS
Hexachlorobutadiene	7.8E-02	C	Kidney	Diet/IRIS
Hexachloroethane	1.4E-02	C	Hepatocellular carcinoma	Gavage/IRIS
Hexachlorocyclopentadiene	NA			NA/IRIS,HEAST
Indeno(123cd)pyrene	6.1 (a)	B2	Lung, skin	IRIS
Isophorone	NA	C		NA/IRIS,HEAST
Naphthalene	NA	D		NA/IRIS,HEAST
Nitrobenzene	NA	D		NA/IRIS,HEAST
N-nitroso-di-n-propylamine	NA	B2		NA/IRIS,HEAST
N-nitrosodiphenylamine	NA	B2		NA/IRIS,HEAST
Pentachlorophenol	NA	B2		NA/IRIS,HEAST
Phenanthrene	NA	D		NA/IRIS,HEAST
Phenol	NA	D		NA/IRIS,HEAST
Pyrene	NA	D		NA/IRIS,HEAST
PESTICIDES				
4,4'-DDD	NA	B2		IRIS,HEAST
4,4'-DDE	NA	B2		HEAST
4,4'-DDT	3.4E-01	B2	Liver	Diet,IRIS/HEAST
Aldrin	17	B2	Liver carcinoma	Oral/IRIS
Alpha-BHC	6.3	B2	Liver carcinoma	Oral/IRIS
Alpha-chlorodane	1.3	B2	Hepatocellular carcinoma	Diet/IRIS
Beta-BHC	1.8	B2	Hepatic nodules	Diet/IRIS
Dieldrin	16	B2	Liver carcinoma	Oral/IRIS
Delta-BHC	NA	B2		NA/IRIS,HEAST
Endosulfan I	NA			NA/IRIS,HEAST
Endosulfan II	NA			NA/IRIS,HEAST
Endosulfan Sulfate	NA			NA/IRIS,HEAST
Endrin	NA	D		NA/IRIS,HEAST
Endrin ketone	NA			NA/IRIS,HEAST
Gamma-BHC	NA	B2-C		NA/IRIS,HEAST
Gamma-chlorodane	1.3	B2	Hepatocellular carcinoma	Diet/IRIS
Heptachlor	4.5	B2	Hepatocellular carcinoma	Diet/IRIS
Heptachlor epoxide	9.1	B2	Hepatocellular carcinoma	IRIS,HEAST
Methoxychlor	NA	D		NA/IRIS,HEAST
Toxaphene	1.1	B2	Hepatocellular carcinoma and neoplastic nodules	Diet/IRIS
PCB's				
Aroclor-1016	NA			NA/IRIS,HEAST
Aroclor-1221	NA			NA/IRIS,HEAST
Aroclor-1232	NA			NA/IRIS,HEAST
Aroclor-1242	NA			NA/IRIS,HEAST
Aroclor-1248	NA			NA/IRIS,HEAST
Aroclor-1254	NA			NA/IRIS,HEAST
Aroclor-1260	NA			NA/IRIS,HEAST

a : The oral Rfd was used when an inhalation value was not available
b : Region 1 guidance suggests the use of Naphthalene Rfd for all PAHs without an Rfd

APPENDIX G

CHEMICAL/PHYSICAL AND ENVIRONMENTAL FATE PROPERTIES

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TABLE G.1-1
APPENDIX G
PHYSICAL, CHEMICAL AND ENVIRONMENTAL
FATE PROPERTIES

COMPOUND	CASRN	Koc (ml/g)	Water Solubility at 25°C (mg/L)	Henry's Law Constant (atm*m3/mol)	Vapor Pressure (mm Hg)	Half life Soil (day's)	Half life Surface Water (day's)	Half life Ground Water (day's)
INORGANICS								
Aluminum								
Antimony	7440-36-0			NA	1		persistent	
Arsenic	7440-38-2			NA	0		persistent	
Barium	7440-39-3			NA			persistent	
Beryllium	7440-41-7			NA	0			
Cadmium	7740-43-9			NA	0		persistent	
Calcium								
Chromium	7440-47-3			NA	0		3	
Cobalt								
Copper	7440-50-8			NA	0			
Cyanide							0.33-0.8	
Iron								
Lead	7439-92-1			NA	0		persistent	
Magnesium								
Manganese	7439-96-5			NA				
Mercury	7439-97-6			NA	2E-03		persistent	
Nickel	7440-02-0			NA	0			
Potassium								
Selenium	7782-49-2			NA	0			
Silver	7440-22-4			NA	0			
Sodium								
Thallium	7440-28-0				0			
Vanadium	7440-62-2			NA				
Zinc	7440-66-6			NA	0		persistent	
VOLATILES								
1,1-Dichloroethene	75-35-4	65	2250	3.4E-02	600		1-6	
1,1,1-Trichloroethane	71-55-6	152	1500	1.44E-02	123		0.14-7	
1,1,2-Trichloroethane	79-00-5	56	4500	1.17E-03	30		1.9	
1,1,2,2-Tetrachloroethane	79-34-5	118	2900	3.41E-04	5		0.04	
1,2-Dichloroethane	107-06-2	14	8520	9.78E-04	64		0.17	
1,2-Dichloroethene(trans)	540-59-0	59	6300	6.66E-03	324		1-6	
1,2-Dichloropropane	78-87-5	51	2700	2.31E-03	42		1.4-7.7	
1,3-Dichloropropene(cis)	542-75-6	48	2800	1.3E-03	25		1	
1,3-Dichloropropene(trans)	542-75-6	48	2800	1.3E-03	25		1	
2-Butanone	78-93-3	4.5	2.68E+05	2.74E-05	77.5		10	
2-Hexanone	591-78-6	135	3.5E+04	1.75E-03	3.8			
4-Methyl-2-Pentanone	108-10-1	6.2	1.7E+4	1.49E-05	6			
Acetone	67-64-1	2.2	1E+06	2.06E-05	270			
Benzene	71-43-2	83	1750	5.59E-03	95.2		1-6	
Bromodichloromethane	75-27-4	62	4500 @ 0°C	2.4E-03	50			
Bromoform	75-25-2	282	3130	5.6E-04	5.6			
Carbon disulfide	75-15-0	54	2940	1.23E-02	360			
Carbon Tetrachloride	56-23-5	110	757	2.41E-02	90		0.3-300	
Chlorobenzene	108-90-7	330	466	3.72E-03	11.7		0.3	
Chloroform	67-66-3	31	8200	2.87E-03	151		0.3-30	
Chloromethane	75-00-3	3.2	4700	1.11E-02	1011			
Dibromochloromethane	124-48-1	83	4000	9.9E-04	76			
Ethylbenzene	100-41-4	1100	152	6.43E-03	7			
Methylene Chloride	75-09-2	8.7	1.3E+04	2E-03	440			
Styrene	100-42-5	741	300	2.61E-03	6.45			
Tetrachloroethene	127-18-4	364	150	2.59E-02	17.8		1-30	
Toluene	108-88-3	300	535	6.37E-03	28.1		0.17	
Trichloroethene	79-01-6	126	1100	9.1E-03	57.9		1-90	
Vinyl chloride	75-01-4	57	2670	8.19E-02	2670		1-5	
Xylenes	1330-20-7	240	198	7.04E-03	10		1.5-9	

REFERENCES
"Superfund Public Health Evaluation Manuel" EPA (1986)
"Multiple-Pathways Screening-Level Assessment of a Hazardous Waste Incineration Facility." Oak Ridge National Laboratory (1984)
"Groundwater Chemicals Desk Reference" Lewis Publishers, Inc. (1990)

TABLE G.1-1 (cont.)
APPENDIX G
PHYSICAL, CHEMICAL AND ENVIRONMENTAL
FATE PROPERTIES

COMPOUND	CASRN	Koc (ml/g)	Water Solubility at 25°C (mg/L)	Henry's Law Constant (atm*m3/mol)	Vapor Pressure (mm Hg)	Half life Soil (day's)	Half life Surface Water (day's)	Half life Ground Water (day's)
SEMIVOLATILES								
1,3-Dichlorobenzene	541-73-1	1700	123	3.59E-03	2.28			
1,4-Dichlorobenzene	106-46-7	1700	79	2.89E-03	1.18		1.5-8.5	
2-Methylnaphthalene	91-57-6	8511	24.6					
2,4-Dichlorophenol	120-83-2	380	4600	2.75E-06	5.9E-02		6	
2,4-Dinitrotoluene	121-14-2	62	270	8.67E-07	5.1E-03		0.4-10	
2,4,5-Trichlorophenol	95-95-4	89	1190	2.18E-04	1	72		
2,4,6-Trichlorophenol	88-06-2	2000	800	3.9E-06	1.2E-02	5	1-19	
2,6-Dinitrotoluene	606-20-2	62	300	2.17E-07	0.018			
3-Nitroaniline	99-09-2	18	890					
3,3-Dichlorobenzidine	91-94-1	1553	4	8.33E-07	1E-05			
Acenaphthene	83-32-9	4600	3.24	9.2E-05	1.55E-03			
Acenaphthylene	208-96-8	2500	3.93	1.48E-03	2.9E-02		0.125	
Anthracene	120-12-7	14000	4.5E-02	1.02E-03	1.95E-04			
Benzo(a)anthracene	56-55-3	1380000	5.7E-03	1.16E-06	2.2E-08		0.1-5	
Benzo(a)pyrene	50-32-8	5500000	1.2E-03	1.55E-06	5.6E-09	420-480	0.4	
Benzo(b)fluoranthene	205-99-2	550000	1.4E-02	1.19E-05	5E-07		1-2	
Benzo(ghi)perylene	191-24-2	1600000	7E-04	5.34E-08	1.03E-10			
Benzo(k)fluoranthene	207-08-9	550000	4.3E-03	3.94E-05	5.1E-07			
Bis(2-chloroethyl)ether	111-44-4	13.9	1.02E+04	1.31E-05	0.71			
Bis(2ethylhexyl)phthalate	117-81-7	100000	0.4	1.1E-05	6.2E-08			
Butylbenzylphthalate								
Chrysene	218-01-9	200000	1.8E-03	1.05E-06	6.3E-09		0.2	
Dibenzofuran	132-64-9	8128	10					
Dibenzo(a,h)anthracene	53-70-3	3300000	5E-04	7.33E-08	1E-10		0.0208-2.08	
Di-n-butylphthalate	84-74-2	170000	13	2.82E-07	1E-05			
Di-n-octylphthalate								
Fluoranthene	206-44-0	38000	0.206	6.46E-06	5E-06		1-2	
Fluorene	86-73-7	7300	1.69	6.42E-05	7.1E-04			
Hexachlorobenzene	188-74-1	3900	6E-03	6.81E-04	1.09E-05	1100-2200	0.3-300	
Hexachlorobutadiene	86-68-3	29000	0.15	4.57	2		29-2300	
Hexachloroethane	67-72-1	20000	50	2.49E-03	0.4		1.1-9.5	
Indeno(123cd)pyrene	193-39-5	1600000	5.3E-04	6.86E-08	1E-10		0.0208-2.08	
Isophrone	78-59-1	31	1.2E+04	5.8E-06	0.38			
Naphthalene	91-20-3	550	30	4.6E-04	0.23			
Nitrobenzene	98-95-3	36	1900		0.15		12.5	
N-nitroso-di-n-propylamine	621-64-7	10.2	9900					
N-nitrosodiphenylamine	86-30-6	575	35.1	2.33E-08	0.1			
Pentachlorophenol	87-86-5	53000	14	2.75E-06	1.1E-04		5	
Phenanthrene	85-01-8	14000	1	1.59E-04	6.8E-04		0.38-2	
Phenol	108-95-2	14.2	9.3E+04	4.54E-07	0.341		0.62-9	
Pyrene	129-00-0	38000	0.132	5.04E-06	2.5E-06			
PESTICIDES								
4,4'-DDD	72-54-8	770000	0.1	7.96E-06	1.89E-06			
4,4'-DDE	72-55-9	4400000	4E-02	6.8E-05	6.6E-06			
4,4'-DDT	50-29-3	243000	5E-03	5.13E-04	5.6E-06	1000-5500	56-110	
Aldrin	309-00-02	96000	0.18	1.6E-05	6E-06			
Alpha-BHC	319-84-6	3800	1.63	5.87E-06	2.5E-05			
Alpha-chlordane	57-74-9	140000	0.56	9.63E-06	1E-05		420-500	
Beta-BHC	319-85-7	3800	0.24	4.47E-07	2.8E-07			
Dieldrin	60-57-1	1700	0.195	4.58E-07	1.78E-07			
Delta-BHC	319-86-8	6600	31.4	2.07E-07	1.7E-05			
Endosulfan I	959-98-8	2042	0.53	1.01E-04	1E-05			
Endosulfan II	33213-65-9	2344	0.28	1.91E-05	1E-05			
Endosulfan Sulfate	1031-07-8	2344	0.117					
Endrin	72-20-8	8318	0.26	5E-07	7E-07			
Endrin ketone	53494-70-5							
Gamma-BHC	58-89-9	1080	7.8	7.85E-06	1.6E-04			
Gamma-Chlordane	57-74-9	140000	0.56	9.63E-06	1E-05		420-500	
Heptachlor	76-44-8	12000	0.18	8.19E-04	3E-04		0.96	
Heptachlor epoxide	1024-57-3	220	0.35	4.39E-04	3E-04			
Methoxychlor	72-43-5	89125	0.04					
Toxaphene	8001-35-2	964	0.5	0.436	0.4		2-14.2	
PCB's								
Aroclor-1016	12674-11-2	60119	0.049		4E-04			
Aroclor-1221	11104-28-2	276	0.2	3.24E-04	6.7E-03			
Aroclor-1232	11141-16-5	676	1.45	8.64E-04	4.6E-03			
Aroclor-1242	53469-21-9	5129	0.24	5.6E-04	4.06E-04			
Aroclor-1248	12672-29-6	436516	0.06	3.5E-03	4.94E-04			
Aroclor-1254	11097-69-1	407380	0.012	2.3E-03	7.71E-05			
Aroclor-1260	11096-82-5	2630268	0.08	7.1E-03	4.05E-05			

REFERENCES
"Superfund Public Health Evaluation Manuel" EPA (1986)
"Multiple-Pathways Screening-Level Assessment of a Hazardous Waste Incineration Facility." Oak Ridge National Laboratory (1984)
"Groundwater Chemicals Desk Reference" Lewis Publishers, Inc. (1990)