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NSA CRANE
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RCRA AIR QUALITY ASSESSMENT REPORT FOR AMMUNITION BURNING GROUND OLD RIFLE RANGE AND DEMOLITION GROUND VOLUME II APPENDICES NSA CRANE IN
2/1/2000
TETRA TECH

7636-3.3-30

0004

RCRA Air Quality Assessment at the Ammunition Burning Ground, Old Rifle Range, and Demolition Ground

Volume II - Appendices

Naval Surface Warfare Center Crane Division

Crane, Indiana

Southern Division Naval Facilities Engineering Command

Contract Number N62467-94-D-0888

Contract Task Order 0035

February 2000

079723/P

RCRA AIR QUALITY ASSESSMENT AT THE AMMUNITION BURNING GROUND, OLD RIFLE RANGE, AND DEMOLITION GROUND

VOLUME II -APPENDICES

NAVAL SURFACE WARFARE CENTER
CRANE DIVISION
CRANE, INDIANA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Submitted by:
Tetra Tech NUS, Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220

CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0035

MARCH 2000

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APPENDIX A

REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
NSWC CRANE

APPENDIX A-1

MASTER LIST OF REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS ELIGIBLE FOR OB/OD TREATMENT AT NSWC CRANE

TABLE A-1

REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
1	10 GAUGE BLANKS	CRANE/DG/PP	BLACK POWDER	100.0000
2	105-MM TP-T CARTRIDGE, M393A1	CRANE/DG	RDX	47.3000
			NITROCELLULOSE	40.1800
			DINITROTOLUENE	4.7300
			WAX	4.6200
			DIBUTYLPHTHALATE	1.8900
			DIPHENYLAMINE	0.4700
			POTASSIUM NITRATE	0.3800
			MAGNESIUM POWDER	0.1200
			STRONTIUM NITRATE	0.1200
			BARIUM COMPOUNDS	0.0300
3	105-MM APDS-T CARTRIDGE, M392A2	CRANE/DG	NITROGUANIDINE	47.3900
			NITROCELLULOSE	28.1200
			NITROGLYCERIN	22.2800
			ETHYL CENTRALITE	1.4900
			POTASSIUM NITRATE	0.4600
			CHARCOAL	0.1000
			GRAPHITE	0.1000
			MAGNESIUM POWDER	0.0500
			STRONTIUM NITRATE	0.0400
			BARIUM PEROXIDE	0.0200
4	105-MM APFSDS-T CARTRIDGE, M735	CRANE/DG	NITROGUANIDINE	47.7900
			NITROCELLULOSE	28.0700
			NITROGLYCERIN	22.5300
			ETHYL CENTRALITE	1.5200
			GRAPHITE	0.0800
5	105-MM BLANK CARTRIDGE, M395	CRANE/DG	POTASSIUM NITRATE	75.1000
			CHARCOAL	15.0000
			SULFUR	9.9000
6	105-MM HEP-T CARTRIDGE, M393A2	CRANE/DG	RDX	47.6600
			NITROCELLULOSE	39.8000
			DINITROTOLUENE	4.6900
			WAX	4.6900
			DIBUTYLPHTHALATE	1.9100
			DIPHENYLAMINE	0.4800
			POTASSIUM NITRATE	0.4000
			CHARCOAL	0.0800
			MAGNESIUM POWDER	0.0800
			STRONTIUM NITRATE	0.0800
7	105-MM HIGH EXPLOSIVE CARTRIDGE	CRANE/DG	TRINITROTOLUENE	48.1200
	WITH PD FUZE (M1)		RDX	21.9300

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 2

Crane No.	Description	Unit	Component	Wt. %
			NITROCELLULOSE	17.0300
			DIBUTYLPHTHALATE	10.0000
			DINITROTOLUENE	2.3600
			POTASSIUM NITRATE	0.2300
			DIPHENYLAMINE	0.2000
			TETRYL	0.0300
			LEAD COMPOUNDS	0.0100
8	105-MM HIGH EXPLOSIVE CARTRIDGE	CRANE/DG	TRINITROTOLUENE	53.0700
	WITHOUT FUZE, M1		RDX	23.8700
			NITROCELLULOSE	18.7900
			DINITROTOLUENE	2.6100
			POTASSIUM NITRATE	0.2500
			DIPHENYLAMINE	0.2200
9	1305-A659 CTG 20 MM HEI-T M242A1	CRANE/DG/PP	NITROCELLULOSE	58.0300
	SNGL RD		RDX	10.6300
			NITROGLYCERIN	7.4300
			DIBUTYLPHTHALATE	5.7400
			ALUMINUM POWDER	5.5900
			POTASSIUM COMPOUNDS	2.1700
			STRONTIUM NITRATE	1.3900
			MAGNESIUM/ALUMINUM ALLOY	1.0600
			DIPHENYLAMINE	1.0200
			TIN DIOXIDE	1.0200
			LEAD COMPOUNDS	0.3050
			ANTIMONY SULFIDE	0.0202
10	1305-A662 CTG 20 MM HEI M56	CRANE/DG/PP	NITROCELLULOSE	58.9600
	SERIES LNKD		RDX	11.3600
			NITROGLYCERIN	7.5400
			ATOMIZED ALUMINUM	6.0000
			DIBUTYLPHTHALATE	5.8300
			POTASSIUM COMPOUNDS	2.7800
			MAGNESIUM/ALUMINUM ALLOY	1.6100
			DIPHENYLAMINE	1.0300
			TIN DIOXIDE	1.0300
			LEAD COMPOUNDS	0.3100
			BARIUM NITRATE	0.1470
			ANTIMONY SULFIDE	0.0148
11	1305-A701 CTG 20-MM HEI M56A3	CRANE/DG/PP	NITROCELLULOSE	77.7800
	SERIES LNKD		NITROGLYCERIN	9.2300

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 3

Crane No.	Description	Unit	Component	Wt. %
			DIPHENYLAMINE	1.1200
			TIN DIOXIDE	1.0700
			RDX	1.0200
			HMX	0.9500
			POTASSIUM NITRATE	0.7800
			CALCIUM COMPOUNDS	0.5800
			LEAD COMPOUNDS	0.4400
			SODIUM SULFATE	0.2400
			BARIUM NITRATE	0.2100
			GRAPHITE	0.2000
			ANTIMONY SULFIDE	0.0291
			ZINC STEARATE	0.0048
12	1305-A775 CTG 20-MM HEI M97	CRANE/DG/PP	NITROCELLULOSE	59.1200
	SINGLE RD		RDX	10.1800
			NITROGLYCERIN	6.9600
			DIBUTYLPHTHALATE	6.0100
			DINITROTOLUENE	6.0100
			ALUMINUM POWDER	5.3100
			POTASSIUM COMPOUNDS	1.5800
			TIN	0.6320
			LEAD COMPOUNDS	0.3430
			BARIUM NITRATE	0.1630
			ANTIMONY SULFIDE	0.0227
13	1305-A776 CTG 20-MM INC M96	CRANE/DG/PP	NITROCELLULOSE	67.0700
	SNGL RD		POTASSIUM COMPOUNDS	14.1800
			MAGNESIUM/ALUMINUM ALLOY	12.0400
			DINITROTOLUENE	5.4900
			DIPHENYLAMINE	0.5190
			TIN	0.5190
			LEAD THIOCYANATE	0.0836
			ANTIMONY SULFIDE	0.0395
			PETN	0.0331
			CALCIUM RESINATE	0.0253
14	1305-A785 CTG 20 MM HEI MZ10	CRANE/DG/PP	NITROCELLULOSE	57.2900
	SNGL RD		RDX	9.1200
			NITROGLYCERIN	7.4200
			DIBUTYLPHTHALATE	6.4100
			ALUMINUM POWDER	4.6900
			GRAPHITE	4.1400
			POTASSIUM COMPOUNDS	3.2800

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 4

Crane No.	Description	Unit	Component	Wt. %
			MAGNESIUM/ALUMINUM ALLOY	2.0700
			DIPHENYLAMINE	1.0200
			TIN DIOXIDE	1.0200
			LEAD COMPOUNDS	0.3080
			ANTIMONY SULFIDE	0.0667
15	1305-A806 CTG-20 MM API MK107	CRANE/DG	NITROCELLULOSE	91.4000
	MOD 5 SINGLE ROUND		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
16	1305-A809 CTG-20 MM HPT T131	CRANE/DG	NITROCELLULOSE	91.4000
	SINGLE ROUND		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
17	1305-A811 CTG-20 MM TP MK105	CRANE/DG	NITROCELLULOSE	91.4000
	SNGL RD		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
18	1305-A812 CTG-20 MM AP-T MK108	CRANE/DG	NITROCELLULOSE	91.4000
	SNGL RD		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
19	1305-A872 CTG-20 MM API MK107	CRANE/DG	NITROCELLULOSE	91.4000
	MOD 1 SINGLE ROUND		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
20	1305-A873 CTG-20 MM AP-T MK108	CRANE/DG	NITROCELLULOSE	91.4000
	MOD 1 SNGL RD		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
21	1305-A874 CTG-20 MM TP MK105	CRANE/DG	NITROCELLULOSE	91.4000
	MOD 1 SNGL RD		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 5

Crane No.	Description	Unit	Component	Wt. %
22	1305-A876 CTG-20 MM TP MK105	CRANE/DG	NITROCELLULOSE	91.4000
	MOD 0 SNGL RD		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
23	1305-A884 20 MM API M53 LNKD	CRANE/DG/PP	NITROCELLULOSE	67.6000
			NITROGLYCERIN	8.7500
			DIBUTYLPHTHALATE	7.5600
			MAGNESIUM/ALUMINUM ALLOY	5.3100
			POTASSIUM PERCHLORATE	2.1500
			BARIUM NITRATE	1.7700
			AMMONIUM NITRATE	1.6700
			DIPHENYLAMINE	1.1900
			TIN DIOXIDE	1.1900
			DINITROTOLUENE	0.8000
			SODIUM SULFATE	0.3900
			LEAD STYPHNATE	0.1600
24	1305-A892 CTG-20 MM HPT 54A1	CRANE/DG	NITROCELLULOSE	91.4000
	SNGL RD		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
25	1305-A974 CTG 25-MM ADP-T M791	CRANE/DG	NITROCELLULOSE	91.4000
	LNKD		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
26	1305-B112 CTG 30-MM HEI MK3Z	CRANE/DG	PETN	50.0000
	LNKD LHF		TNT	50.0000
27	1305-B113 CTG 30-MM TP MK4Z	CRANE/DG	NITROCELLULOSE	91.4000
	LNKD LHF		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
28	1305-B114 CTG 30-MM HEI M3Z-1	CRANE/DG	PETN	50.0000
	LNKD RHF		TNT	50.0000
29	1305-B114 CTG 30-MM HEI M799	CRANE/DG	PETN	50.0000
	LNKD LHF		TNT	50.0000
30	1305-B115 CTG 30-MM TP MK4Z	CRANE/DG	NITROCELLULOSE	91.4000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 6

Crane No.	Description	Unit	Component	Wt. %
	LNKD RHF		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
31	1305-B120 CTG 30-MM TP M788	CRANE/DG/PP	NITROCELLULOSE	77.1100
	LNKD RHF		NITROGLYCERIN	9.9500
			DIBUTYLPHTHALATE	9.0500
			DIPHENYLAMINE	1.3600
			CALCIUM CARBONATE	0.9000
			POTASSIUM NITRATE	0.4500
			SODIUM SULFATE	0.4500
			GRAPHITE	0.3600
			BARIUM NITRATE	0.1500
			LEAD STYPHNATE	0.1400
			CALCIUM SILICIDE	0.0600
32	1305-B125 CTG 30-MM HEI M799	CRANE/DG	PETN	50.0000
	LNKD RHF		TNT	50.0000
33	1310-B551 CTG 40-MM AP M81A1	CRANE/DG	NITROCELLULOSE	80.2300
	CLIPPED		DINITROTOLUENE	9.4400
			DIBUTYLPHTHALATE	4.7200
			STRONTIUM NITRATE	1.6200
			MAGNESIUM	1.0900
			POTASSIUM COMPOUNDS	0.9900
			DIPHENYLAMINE	0.9400
			BARIUM PEROXIDE	0.3300
			POLYVINYL CHLORIDE	0.2000
			ALUMINUM	0.0500
			ANTIMONY SULFIDE	
			LEAD THIOCYANATE	
34	1310-B559 40-MM EI-T-SD 4/CLIP	CRANE/DG	NITROCELLULOSE	70.3800
			TNT	16.1000
			DINITROTOLUENE	8.2800
			DIBUTYLPHTHALATE	3.3100
			DIPHENYLAMINE	0.8280
			POTASSIUM NITRATE	0.7880
			CHARCOAL	0.1560
			SULFUR	0.1050
			LEAD AZIDE	0.0302
			POTASSIUM CHLORATE	0.0114
			ANTIMONY SULFIDE	0.0055
			CARBORUNDUM	0.0004

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 7

Crane No.	Description	Unit	Component	Wt. %
35	1310-B569 CTG 40-MM HE M406	CRANE/DG	RDX	59.3200
			TNT	38.5200
			WAX	0.9900
			NITROCELLULOSE	0.5900
			NITROGLYCERIN	0.4100
			LEAD COMPOUNDS	0.2100
			POTASSIUM COMPOUNDS	0.0600
			ANTIMONY SULFIDE	0.0200
			BARIUM NITRATE	0.0100
			ETHYL CENTRALITE	
			TETRACENE	
36	1310-B586 CTG-57 MM HE M306 A1	CRANE/DG	NITROCELLULOSE	60.5500
			RDX	20.3700
			TRINITROTOLUENE	13.2500
			POTASSIUM COMPOUNDS	2.5200
			TETRYL	1.5700
			DIPHENYLAMINE	0.6170
			CHARCOAL	0.3920
			LEAD: AZIDE + STYPHATE	0.0528
			BARIUM NITRATE	0.0135
			ANTIMONY SULFIDE	0.0035
			ALUMINUM POWDER	0.0014
37	1310-B587 CTG 57-MM HEAT M307	CRANE/DG	NITROCELLULOSE	57.2500
	SERIES		RDX	14.3300
			PETN	11.7000
			TRINITROTOLUENE	11.7000
			POTASSIUM COMPOUNDS	2.3700
			TETRYL	0.8770
			DIPHENYLAMINE	0.5840
			GRAPHITE	0.5840
			LEAD COMPOUNDS	0.0374
			ANTIMONY SULFIDE	0.0099
			BARIUM NITRATE	0.0098
38	1310-B588 CTG-57 MM TP M306 A1	CRANE/DG	NITROCELLULOSE	86.1700
			POTASSIUM COMPOUNDS	8.0100
			TETRYL	2.2400
			CHARCOAL	1.5000
			SULFUR	1.0000
			DIPHENYLAMINE	0.8800
			GRAPHITE	0.0900
			LEAD COMPOUNDS	0.0700

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 8

Crane No.	Description	Unit	Component	Wt. %
			BARIUM NITRATE	0.0200
			ALUMINUM POWDER	0.0100
			ANTIMONY SULFIDE	0.0100
39	1310-B632 CTG, 60 MM M49 SERIES	CRANE/DG/PP	TRINITROTOLUENE	51.3600
			RDX	43.6600
			NITROCELLULOSE	2.5300
			NITROGLYCERIN	2.0200
			DESENSITIZER	0.6330
			DIETHYLPHTHALATE	0.1770
			TETRYL	0.1270
			POTASSIUM COMPOUNDS	0.1020
			LEAD COMPOUNDS	0.0693
			ETHYL CENTRALITE	0.0302
			ANTIMONY SULFIDE	0.0080
40	1310-B643 CTG 60-MM HE M888	CRANE/DG	RDX	60.0000
			TNT	39.0000
			WAX	1.0000
41	1314-C306 CTG-3 IN 50 CAL HE-IR MK33	CRANE/DG	NITROCELLULOSE	75.5600
			RDX	15.7700
			DINITROTOLUENE	5.7900
			WAX	1.5600
			DIPHENYLAMINE	0.7440
			POTASSIUM SULFATE	0.4960
			GRAPHITE	0.1650
42	1315-C027 CTG-75 MM HE M48	CRANE/DG	TRINITROTOLUENE	62.0800
			NITROCELLULOSE	30.2000
			DINITROTOLUENE	3.5600
			DIBUTYLPHTHALATE	1.7800
			TETRYL	1.6600
			DIPHENYLAMINE	0.3560
			POTASSIUM COMPOUNDS	0.2880
			CHARCOAL	0.0597
			LEAD: THIOCYANATE + AZIDE + STYPHRATE	0.0413
			ANTIMONY SULFIDE	0.0027
			BARIUM CHROMATE	0.0020
			BARIUM NITRATE	0.0003
43	1315-C302 CTG 3 IN 50 CAL AA MK27	CRANE/DG	NITROCELLULOSE	76.9700
	FLASHLESS		HE	15.7900
			DINITROTOLUENE	5.8800

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 9

Crane No.	Description	Unit	Component	Wt. %
			DIPHENYLAMINE	0.7560
			POTASSIUM SULFATE	0.5040
			GRAPHITE	0.1680
44	1315-C052 CTG-76 MM HEAT M310	CRANE/DG	NITROCELLULOSE	74.6400
			PETN	10.6500
			TRINITROTOLUENE	10.6500
			POTASSIUM COMPOUNDS	1.5200
			TETRYL	1.0800
			DIPHENYLAMINE	0.7630
			STRONTIUM NITRATE	0.1340
			MAGNESIUM	0.0840
			LEAD COMPOUNDS	0.0095
			ALUMINUM POWDER	0.0041
			ANTIMONY SULFIDE	0.0015
45	1315-C053 CTG 75 MM HEP-T M349	CRANE/DG	NITROCELLULOSE	54.7400
			RDX	38.6000
			DESENSITIZER	3.8100
			POTASSIUM COMPOUNDS	1.0900
			TETRYL	0.7540
			DIPHENYLAMINE	0.5590
			STRONTIUM NITRATE	0.0932
			MAGNESIUM	0.0584
			LEAD COMPOUNDS	0.0066
			ALUMINUM POWDER	0.0029
			ANTIMONY SULFIDE	0.0010
46	1315-C113 76-MM HE PD MX166	CRANE/DG	NITROCELLULOSE	73.1500
			RDX	18.2500
			DINITROCELLULOSE	5.5900
			WAX	1.8100
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
47	1315-C122 76-MM HE M352	CRANE/DG	NITROCELLULOSE	60.9600
			RDX	16.9200
			TNT	10.9600
			DINITROTOLUENE	6.9200
			DIBUTYLPHTHALATE	1.3500
			TETRYL	0.9500
			POTASSIUM COMPOUNDS	0.8200
			DIPHENYLAMINE	0.7000
			LEAD COMPOUNDS	0.0200

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 10

Crane No.	Description	Unit	Component	Wt. %
			ANTIMONY SULFIDE	
			BARIUM CHROMATE	
			BARIUM NITRATE	
48	1315-C136 CTG-3 IN 50 CAL VT MK33	CRANE/DG	NITROCELLULOSE	73.2000
			HE	19.8000
			DINITROTOLUENE	5.6000
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
49	1315-C150 CTG-3 IN 50 CAL VT NSD	CRANE/DG	NITROCELLULOSE	73.2000
	MK33		HE	19.8000
			DINITROTOLUENE	5.6000
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
50	1315-C152 CTG-3 IN 50 CAL VT SD	CRANE/DG	NITROCELLULOSE	73.2000
	MK33		HE	19.8000
			DINITROTOLUENE	5.6000
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
51	1315-C162 CTG-3 IN 50 CAL VT	CRANE/DG	NITROCELLULOSE	72.6600
	NON-FRAG MK33		POTASSIUM NITRATE	15.3500
			DINITROTOLUENE	5.5600
			CHARCOAL	3.0700
			SULFUR	2.0500
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
52	1315-C164 CTG-3 IN 50 CAL VT	CRANE/DG	NITROCELLULOSE	72.5300
	NON-FRAG MK33		POTASSIUM NITRATE	15.3500
			DINITROTOLUENE	5.5700
			CHARCOAL	3.0700
			SULFUR	2.0500
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
53	1315-C172 CTG-3 IN 50 CAL ILLUM	CRANE/DG	NITROCELLULOSE	79.0500
	MK26 MODS		POTASSIUM NITRATE	10.0700
			DINITROTOLUENE	6.0700
			CHARCOAL	2.0200

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			SULFUR	1.3400
			DIPHENYLAMINE	0.7800
			POTASSIUM SULFATE	0.5200
			GRAPHITE	0.1700
54	1315-C178 CTG-3 IN 50 CAL BL-T MK27	CRANE/DG	NITROCELLULOSE	91.4000
			DINITROTOLUENE	7.0000
			POTASSIUM SULFATE	0.9000
			DIPHENYLAMINE	0.6000
			GRAPHITE	0.2000
55	1315-C179 CTG-3 IN 50 CAL BL-P MK27	CRANE/DG	NITROCELLULOSE	91.4000
			DINITROTOLUENE	7.0000
			POTASSIUM SULFATE	0.9000
			DIPHENYLAMINE	0.6000
			GRAPHITE	0.2000
56	1315-C218 CTG-3 IN 50 CAL HC MK27	CRANE/DG	NITROCELLULOSE	68.8000
			RDX	22.3700
			DINITROTOLUENE	5.2600
			WAX	2.2400
			DIPHENYLAMINE	0.6800
			POTASSIUM SULFATE	0.4500
			GRAPHITE	0.1500
57	1315-C222 CTG 81 MM HE M362	CRANE/DG	RDX	56.1900
	SERIES W/PD FUZE		TNT	34.3500
			NITROCELLULOSE	6.8000
			NITROGLYCERIN	1.4500
			DESENSITIZER	0.8800
			BARIUM NITRATE	0.1100
			POTASSIUM COMPOUNDS	0.0900
			ETHYL CENTRALITE	0.0500
			LEAD COMPOUNDS	0.0400
			GRAPHITE	0.0200
			BARIUM CHROMATE	0.0020
			ANTIMONY SULFIDE	0.0010
58	1315-C223 CTG 81 MM HE M362	CRANE/DG	RDX	57.4000
	W/O FUZE		TNT	35.6000
			NITROCELLULOSE	7.0400
			NITROGLYCERIN	1.5000
			DESENSITIZER	0.9100
			BARIUM NITRATE	0.1100
			POTASSIUM COMPOUNDS	0.0900
			ETHYL CENTRALITE	0.0500

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			GRAPHITE	0.0200
			LEAD THIOCYANATE	0.0005
			ANTIMONY SULFIDE	0.0004
59	1315-C296 CTG-3 IN 50 CAL HC MK 27	CRANE/DG	NITROCELLULOSE	76.9700
			TNT	15.7900
			DINITROTOLUENE	5.8800
			DIPHENYLAMINE	0.7560
			POTASSIUM SULFATE	0.5040
			GRAPHITE	0.1680
60	1315-C299 CTG 3 IN 50 CAL AA MK27	CRANE/DG	NITROCELLULOSE	76.9700
	NON-FL		TNT	15.7900
			DINITROTOLUENE	5.8800
			DIPHENYLAMINE	0.7560
			POTASSIUM SULFATE	0.5040
			GRAPHITE	0.1680
61	1315-C305 CTG 3 IN 50 CAL ILLUM	CRANE/DG	NITROCELLULOSE	79.0500
	MK25 MODS		POTASSIUM NITRATE	10.0700
			DINITROTOLUENE	6.0700
			CHARCOAL	2.0200
			SULFUR	1.3400
			DIPHENYLAMINE	0.7800
			POTASSIUM SULFATE	0.5200
			GRAPHITE	0.1700
62	1315-C307 CTG 3 IN 50 CAL HE-IR MK33	CRANE/DG	NITROCELLULOSE	73.2700
			TNT	19.8400
			DINITROTOLUENE	5.6100
			DIPHENYLAMINE	0.7210
			POTASSIUM SULFATE	0.4810
			GRAPHITE	0.1600
63	1315-C319 CTG 50 CAL VT NON-FRAG	CRANE/DG	NITROCELLULOSE	72.5300
	MK31		POTASSIUM NITRATE	15.3500
			DINITROTOLUENE	5.5700
			CHARCOAL	3.0700
			SULFUR	2.0500
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
64	1315-C320 CTG-3 IN 50 CAL VT	CRANE/DG	NITROCELLULOSE	72.5300
	NON-FRAG MK31		POTASSIUM NITRATE	15.3500
			DINITROTOLUENE	5.5700

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			CHARCOAL	3.0700
			SULFUR	2.0500
			DIPHENYLAMINE	0.7200
			POTASSIUM SULFATE	0.4800
			GRAPHITE	0.1600
65	1315-C321 CTG 3 IN 50 CAL HE-IR MK31	CRANE/DG	NITROCELLULOSE	75.5600
	NON-FL		RDX	15.7700
			DINITROTOLUENE	5.7900
			WAX	1.5600
			DIPHENYLAMINE	0.7440
			POTASSIUM SULFATE	0.4960
			GRAPHITE	0.1650
66	1315-C322 CTG 3 IN 50 CAL HE-IR MK31	CRANE/DG	NITROCELLULOSE	73.2700
	FLASHLESS		TNT	19.8400
			DINITROTOLUENE	5.6100
			DIPHENYLAMINE	0.7210
			POTASSIUM SULFATE	0.4810
			GRAPHITE	0.1600
67	1315-C338 CTG-3 IN 50 CAL BL-P	CRANE/DG	NITROCELLULOSE	91.4000
	MK29/27/185 FLASHLESS		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
68	1315-C341 CTG-3 IN 50 CAL BL-P	CRANE/DG	NITROCELLULOSE	91.4000
	MK29/27/185 FLASHLESS		DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
69	1315-C347 CTG-3 IN 50 CAL HC	CRANE/DG	NITROCELLULOSE	76.9700
	MK33 FLASHLESS		TNT	15.7900
			DINITROTOLUENE	5.8800
			DIPHENYLAMINE	0.7560
			POTASSIUM SULFATE	0.5040
			GRAPHITE	0.1680
70	1315-C348 CTG-3 IN 50 CAL HC	CRANE/DG	NITROCELLULOSE	68.8000
	MK33 NON-FL		RDX	22.3700
			DINITROTOLUENE	5.2600
			WAX	2.2400
			DIPHENYLAMINE	0.6800

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			POTASSIUM SULFATE	0.4500
			GRAPHITE	0.1500
71	1315-C373 CTG 3 IN 50 CAL VT	CRANE/DG	NITROCELLULOSE	77.8500
	NON-FRAG MK36 NFL		SODIUM NITRATE	11.1200
			DINITROTOLUENE	5.9600
			CHARCOAL	2.2200
			SULFUR	1.4800
			DIPHENYLAMINE	0.7660
			POTASSIUM SULFATE	0.5110
			GRAPHITE	0.1700
72	1315-C375 CTG 3 IN 50 CAL VT	CRANE/DG	NITROCELLULOSE	77.8500
	NON-FRAG MK36 NFL		SODIUM NITRATE	11.1200
			DINITROTOLUENE	5.9600
			CHARCOAL	2.2200
			SULFUR	1.4800
			DIPHENYLAMINE	0.7660
			POTASSIUM SULFATE	0.5110
			GRAPHITE	0.1700
73	1315-C429 CTG 105-MM HEP-1 M393	CRANE/DG	RDX	46.9600
	SERIES		NITROCELLULOSE	40.4400
			DINITROTOLUENE	4.7600
			WAX	4.6400
			DIBUTYLPHTHALATE	2.3800
			DIPHENYLAMINE	0.4800
			POTASSIUM NITRATE	0.3900
			MAGNESIUM POWDER	0.1200
			STRONTIUM NITRATE	0.1200
			CHARCOAL	0.0800
			SULFUR	0.0500
74	1315-C430 105 MM HE M1 W/O FUZE	CRANE/DG	TNT	52.6800
			RDX	22.9300
			NITROCELLULOSE	19.9300
			DINITROTOLUENE	2.3400
			DIBUTYLPHTHALATE	1.1600
			POTASSIUM NITRATE	0.2600
			DIPHENYLAMINE	0.2300
			ANTIMONY SULFIDE	
			LEAD THIOCYANATE	
			POTASSIUM CHLORATE	
75	1315-C510 CTG 105-MM TP-T M467	CRANE/DG	NITROCELLULOSE	83.5500
			DINITROTOLUENE	9.8200

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
			DIBUTYLPHTHALATE	4.9100
			DIPHENYLAMINE	0.9800
			POTASSIUM NITRATE	0.8000
			MAGNESIUM POWDER	0.2400
			STRONTIUM NITRATE	0.2400
			CHARCOAL	0.1700
			SULFUR	0.1100
			BARIUM PEROXIDE	0.0600
			PERCHLOROPENTACYCL ODECANE	0.0400
			VINYL ALCOHOL ACETATE RESIN	0.0400
76	1315-C699 CTG 4.2 IN HE M329A2	CRANE/DG	RDX	51.1900
	W/O FUZE		TNT	38.6900
			NITROCELLULOSE	4.6500
			NITROGLYCERIN	3.8300
			WAX	0.8530
			POTASSIUM NITRATE	0.3950
			METHYLPHTHALATE	0.2670
			CHARCOAL	0.0556
			ETHYL CENTRALITE	0.0534
			SULFUR	0.0371
77	1315-C800 PJ & PJCHG - 120 MM	CRANE/DG	NITROGUANIDINE	33.1900
	HE T15E3		RDX	22.9900
			TNT	14.9700
			NITROCELLULOSE	12.1300
			NITROGLYCERIN	11.5300
			DIBUTYLPHTHALATE	2.7300
			STRONTIUM NITRATE	0.0137
			LEAD COMPOUNDS	0.0059
			ALUMINUM	0.0004
			BARIUM CHROMATE	0.0003
			ANTIMONY SULFIDE	0.0003
			BARIUM NITRATE	0.0000
78	1315-C801 PJ & PRCHG 120 MM	CRANE/DG	NITROGUANIDINE	33.1900
	HE M356		RDX	22.9900
			TNT	14.9700
			NITROCELLULOSE	12.1300
			NITROGLYCERIN	11.5300
			DIBUTYLPHTHALATE	2.7300
			STRONTIUM NITRATE	0.0137

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			LEAD COMPOUNDS	0.0059
			ALUMINUM	0.0004
			BARIUM CHROMATE	0.0003
			ANTIMONY SULFIDE	0.0003
			BARIUM NITRATE	0.0000
79	1315-C807 PJ & PPCHG 120 MM	CRANE/DG	NITROCELLULOSE	71.7200
	HEAT-TM 469		RDX	10.1400
			DINITROTOLUENE	8.2400
			TNT	6.5900
			DIBUTYLPHTHALATE	2.4700
			DIPHENYLAMINE	0.8240
			MAGNESIUM POWDER	0.0212
			STRONTIUM NITRATE	0.0198
			BARIUM PEROXIDE	0.0112
			LEAD COMPOUNDS	0.0011
			ANTIMONY SULFIDE	0.0001
80	1320-D151 BURSTER PROJ. M71	CRANE/DG	RDX	60.0000
	F/GAS PROJ. 155 MM		TNT	39.0000
			WAX	1.0000
81	1320-D153 BRUSTER PROJ. M83	CRANE/DG	RDX	60.0000
			TNT	39.0000
			WAX	1.0000
82	1320-D485 PROJ. 155-MM HE 101	CRANE/DG	TNT	99.6700
			TETRYL	0.3300
			LEAD COMPOUNDS	0.0100
			ANTIMONY SULFIDE	
			BARIUM COMPOUNDS	
			BORON POWDER	
			CARBORUNDUM	
			POTASSIUM CHLORATE	
			TETRACENE	
83	1320-D569 PROJ. 155-MM HE 101	CRANE/DG	TNT	99.6800
			TETRYL	0.3200
			LEAD COMPOUNDS	0.0100
			ANTIMONY SULFIDE	
			BARIUM COMPOUNDS	
			BORON POWDER	
			CARBORUNDUM	
			POTASSIUM CHLORATE	
			TETRACENE	
84	1375-M757 CHG ASSY DEMO 183	CRANE/DG	RDX	91.0000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
	COMP C-4 8x2.5 LBS.		SEBACATE	5.3000
			POLYISOBUTYLENE	2.1000
			MOTOR OIL	1.6000
85	1390-N519 PRIMER PERC M57	CRANE/PP	POTASSIUM NITRATE	72.8500
			CHARCOAL	15.3800
			SULFUR	10.2400
			POTASSIUM CHLORATE	0.8000
			LEAD THIOCYANATE	0.3800
			ANTIMONY SULFIDE	0.2600
			TRINITROTOLUENE	0.0800
86	152-MM PROJECTILES	CRANE/DG	COMPOSITION B	100.0000
87	155-MM HIGH-EXPLOSIVE PROJECTILE	CRANE/DG	NITROCELLULOSE	50.5600
	M107 (TNT) 00-529-7331		TRINITROTOLUENE	42.3000
			DINITROTOLUENE	5.8200
			DIBUTYLPHTHALATE	1.1600
			RDX	0.1300
			POTASSIUM NITRATE	0.0100
			TETRYL	0.0100
88	155-MM HIGH-EXPLOSIVE PROJECTILE,	CRANE/DG	RDX	58.4700
	RAP M549 SERIES (COMPOSITION B)		TRINITROTOLUENE	40.2400
			WAX	0.9800
			TETRYL	0.0300
			LEAD AZIDE & LEAD STYPHNATE	0.0100
89	155-MM PROPELLANT CHARGE	CRANE/PA	NITROCELLULOSE	87.0000
	CARTRIDGE WITHOUT PRIMER,		DINITROTOLUENE	10.0000
	RB M119 SERIES		DIBUTYLPHTHALATE	2.0000
			DIPHENYLAMINE	1.0000
90	155-MM PROPELLANT CHARGE	CRANE/PA	NITROCELLULOSE	85.0000
	CARTRIDGE, GB, M3 SERIES		DINITROTOLUENE	10.0000
			DIBUTYLPHTHALATE	4.0000
			DIPHENYLAMINE	1.0000
91	155-MM PROPELLANT CHARGE	CRANE/PA	NITROCELLULOSE	85.0000
	CARTRIDGE, WB M4 SERIES		DINITROTOLUENE	10.0000
			DIBUTYLPHTHALATE	4.0000
			DIPHENYLAMINE	1.0000
92	165-MM HEP CARTRIDGE, M123A1	CRANE/DG	RDX	79.9800
	(COMPOSITION A3)		NITROCELLULOSE	9.0300
			WAX	7.9100
			NITROGLYCERIN	2.2700

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			POTASSIUM CHLORATE	0.4500
			BARIUM NITRATE	0.1600
			POTASSIUM NITRATE	0.0900
			ETHYL CENTRALITE	0.0700
			GRAPHITE	0.0300
93	175-MM HIGH EXPLOSIVE PROJECTILE	CRANE/DG	NITROCELLULOSE	56.7600
	M437A1/M37A2 (TNT)		TRINITROTOLUENE	34.7500
			DINITROTOLUENE	6.5200
			DIBUTYLPHTHALATE	1.3100
94	175-MM HIGH-EXPLOSIVE PROJECTIVE,	CRANE/DG	NITROCELLULOSE	56.3100
	M437A2 (COMPOSITION B)		RDX	21.1200
			TNT	14.1400
			DINITROTOLUENE	6.4700
			DIBUTYLPHTHALATE	1.3000
			DIPHENYLAMINE	0.6500
95	22 CALIBER	CRANE/DG/PP	DINITROTOLUENE	91.4000
			NITROCELLULOSE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
96	22 MM SUBCALIBER DEVICE	CRANE/DG/PP	POTASSIUM NITRATE	74.0000
			CHARCOAL	16.0000
			SULFUR	10.0000
97	3"/50 FUZES	CRANE/DG	BLACK POWDER	100.0000
98	3"/50 PROJECTILES	CRANE/DG	TNT	100.0000
99	30 CALIBER BLANK	CRANE/DG/PP	DINITROTOLUENE	91.4000
			NITROCELLULOSE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
100	30 CALIBER CARBINE	CRANE/DG/PP	DINITROTOLUENE	91.4000
			NITROCELLULOSE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
101	38 SPECIAL	CRANE/DG/PP	DINITROTOLUENE	91.4000
			NITROCELLULOSE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
102	40-MM HEDP CARTRIDGE, M433	CRANE/DG	RDX	97.5800
			DESENSITIZER	1.4900
			NITROCELLULOSE	0.4200
			NITROGLYCERIN	0.2900
			LEAD COMPOUNDS	0.1400
			POTASSIUM CHLORIDE	0.0300
			ANTIMONY SULFIDE	0.0100
			BARIUM NITRATE	0.0100
			ETHYL CENTRALITE	0.0100
			POTASSIUM NITRATE	0.0100
103	40-MM HIGH-EXPLOSIVE CARTRIDGE,	CRANE/DG	RDX	90.6100
	LNKD, M383E1		NITROCELLULOSE	6.0800
			NITROGLYCERIN	1.5300
			DESENSITIZER	1.3800
			BARIUM NITRATE	0.1200
			LEAD COMPOUNDS	0.1200
			POTASSIUM NITRATE	0.0700
			ETHYL CENTRALITE	0.0500
			GRAPHITE	0.0200
			POTASSIUM CHLORATE	0.0200
			ANTIMONY SULFIDE	0.0100
104	40-MM HIGH-EXPLOSIVE CARTRIDGE,	CRANE/DG	RDX	59.2200
	M406		TRINITROTOLUENE	38.5000
			WAX	0.9900
			NITROCELLULOSE	0.5900
			NITROGLYCERIN	0.4100
			LEAD COMPOUNDS	0.2000
			POTASSIUM CHLORATE	0.0400
			ANTIMONY SULFIDE	0.0200
			POTASSIUM NITRATE	0.0200
			BARIUM NITRATE	0.0100
			ETHYL CENTRALITE	0.0100
105	40-MM PAP CARTRIDGE, M576	CRANE/DG	METAL PELLETS	99.1200
			NITROCELLULOSE	0.6000
			NITROGLYCERIN	0.1500
			POTASSIUM CHLORATE	0.0500
			ANTIMONY SULFIDE	0.0200
			LEAD THIOCYANATE	0.0200
			BARIUM NITRATE	0.0100
			ETHYL CENTRALITE	0.0100
			LEAD AZIDE	0.0100

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
			POTASSIUM NITRATE	0.0100
106	40-MM TP CARTRIDGE, M781	CRANE/PA	NITROCELLULOSE	57.7700
			NITROGLYCERIN	39.9300
			POTASSIUM NITRATE	1.5000
			ETHYL CENTRALITE	0.8000
107	40-MM TP LNKD CARTRIDGE, M385	CRANE/DG	NITROCELLULOSE	77.0700
			NITROGLYCERIN	19.3700
			BARIUM NITRATE	1.3900
			POTASSIUM NITRATE	0.7500
			ETHYL CENTRALITE	0.5900
			GRAPHITE	0.3000
			POTASSIUM CHLORATE	0.2800
			ANTIMONY SULFIDE	0.0900
			LEAD AZIDE	0.0300
108	45 CALIBER BLANKS	CRANE/DG/PP	BLACK POWDER	100.0000
109	60 MM MORTAR, TRAINING, M69	CRANE/DG	NITROCELLULOSE	55.0000
			NITROGLYCERIN	38.0000
			POTASSIUM NITRATE	4.0000
			CHARCOAL	1.0000
			ETHYL CENTRALITE	0.7000
			POTASSIUM CHLORATE	0.5000
			SULFUR	0.4000
			ANTIMONY SULFIDE	0.2000
			LEAD SULFOCYANATE	0.2000
			TNT	
110	7.62 BLANK	CRANE/DG/PP	NITROCELLULOSE	84.0000
			NITROGLYCERIN	12.5000
			DINITROTOLUENE	2.4000
			ETHYL CENTRALITE	2.4000
			LEAD STYPHNATE	1.5000
			BARIUM NITRATE	1.4000
			DIPHENYLAMINE	1.0000
			DIBUTYLPHTHALATE	0.7000
			ALUMINUM	0.6000
			ANTIMONY SULFIDE	0.5000
			CALCIUM CARBONATE	0.5000
			POTASSIUM SULFATE	0.5000
			SODIUM SULFATE	0.3000
			GRAPHITE	0.2000
			POTASSIUM NITRATE	0.1000
			TIN DIOXIDE	0.1000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
111	7.62-MM GRENADE RIFLE CARTRIDGE,	CRANE/PP	POTASSIUM NITRATE	75.0000
	M64		CHARCOAL	15.0000
			SULFUR	10.0000
112	76-MM TPT CARTRIDGE (M340A1)	CRANE/DG	NITROGUANIDINE	47.1700
			NITROCELLULOSE	27.7000
			NITROGLYCERIN	22.2600
			ETHYL CENTRALITE	1.4800
			POTASSIUM NITRATE	0.7500
			CHARCOAL	0.1600
			MAGNESIUM POWDER	0.1000
			STRONTIUM NITRATE	0.0900
			BARIUM PEROXIDE	0.0500
113	8-INCH PROPELLING CHARGE, GBM1	CRANE/PA	NITROCELLULOSE	85.0000
			DINITROTOLUENE	10.0000
			DIBUTYLPHTHALATE	4.0000
			DIPHENYLAMINE	1.0000
114	8-INCH PROPELLING CHARGE, WBM2	CRANE/PA	NITROCELLULOSE	85.0000
			DINITROTOLUENE	10.0000
			DIBUTYLPHTHALATE	4.0000
			DIPHENYLAMINE	1.0000
115	81-MM CARTRIDGE W/PD FUZE,	CRANE/DG	NITROCELLULOSE	35.3200
	TPM43A1		NITROGLYCERIN	28.2600
			POTASSIUM NITRATE	25.6300
			CHARCOAL	5.2100
			SULFUR	3.4900
			DIETHYLPHTHALATE	1.6600
			ETHYL CENTRALITE	0.4300
116	81-MM HIGH EXPLOSIVE CARTRIDGE	CRANE/DG	RDX	55.4000
	WITH PD FUZE, M374 SERIES		TRINITROTOLUENE	33.9000
			NITROCELLULOSE	5.7900
			NITROGLYCERIN	3.7200
			DESENSITIZER	0.8200
			POTASSIUM NITRATE	0.2000
			ETHYL CENTRALITE	0.0800
			LEAD COMPOUNDS	0.0400
117	81-MM HIGH EXPLOSIVE CARTRIDGE	CRANE/DG	RDX	59.9600
	WITH PD FUZE, M374 SERIES		TNT	36.4400
			NITROCELLULOSE	1.7800
			NITROGLYCERIN	1.3300
			WAX	0.8900
118	81-MM HIGH-EXPLOSIVE CARTRIDGE,	CRANE/DG	RDX	56.5000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
	M43A1, WITH PD FUZE, M525		TRINITROTOLUENE	34.9000
			NITROCELLULOSE	4.0000
			NITROGLYCERIN	3.2000
			WAX	0.9000
			DIETHYLPHTHALATE	0.2000
			DINITROTOLUENE	0.1000
			POTASSIUM NITRATE	0.1000
			TETRYL	0.0600
			ETHYL CENTRALITE	0.0500
			LEAD AZIDE	0.0300
119	81-MM MORTAR IGNITION CARTRIDGE,	CRANE/C/PP	NITROCELLULOSE	57.7500
	M6		NITROGLYCERIN	40.0000
			POTASSIUM NITRATE	1.5000
			ETHYL CENTRALITE	0.7500
120	90-MM CARTRIDGE, AP-T, M318	CRANE/C	NITROCELLULOSE	85.4200
	SERIES		DINITROTOLUENE	9.8200
			DIBUTYLPHTHALATE	1.9400
			DIPHENYLAMINE	1.0300
			STRONTIUM NITRATE	0.6400
			POTASSIUM NITRATE	0.4800
			MAGNESIUM POWDER	0.4000
			CHARCOAL	0.1000
			ALUMINUM	0.0200
121	90-MM HEAT CARTRIDGE, M371A1	CRANE/DG	NITROCELLULOSE	36.2300
			RDX	32.2800
			TNT	22.9300
			NITROGLYCERIN	3.9700
			BARIUM NITRATE	0.6000
			WAX	0.5700
			POTASSIUM NITRATE	0.3500
			ETHYL CENTRALITE	0.2700
			GRAPHITE	0.1300
122	90-MM HEAT PROJECTILE	CRANE/DG	TNT	100.0000
123	90-MM HIGH EXPLOSIVE CARTRIDGE	CRANE/DG	NITROGUANIDINE	42.1500
	WITH PD FUZE (M71)		NITROCELLULOSE	15.3800
			NITROGLYCERIN	14.6500
			RDX	14.1200
			TNT	8.8500
			ETHYL CENTRALITE	4.6400
			CRYOLITE	0.2100

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
124	90-MM HIGH EXPLOSIVE CARTRIDGE	CRANE/DG	NITROGUANIDINE	42.3700
	WITHOUT FUZE, M71		NITROCELLULOSE	15.4700
			NITROGLYCERIN	14.7200
			RDX	13.6700
			TNT	8.9000
			ETHYL CENTRALITE	4.6600
125	BLACK POWDER	CRANE/PA	POTASSIUM NITRATE	74.0000
			CHARCOAL	15.6000
			SULFUR	10.4000
126	BLASTING CAPS	CRANE/DG/PP	LEAD AZIDE	100.0000
127	BOMB NOSE, FUZE, M904 E2/E3	CRANE/DG	RDX	99.4500
			TETRYL	0.2700
			BARIUM CHROMATE	0.0900
			LEAD COMPOUNDS	0.0900
			ZIRCONIUM NICKEL ALLOY	0.0500
			POTASSIUM PERCHLORATE	0.0200
			RAREOX	0.0200
128	BOMB TAIL FUZE, M905	CRANE/DG	TETRYL	99.8500
			BARIUM CHROMATE	0.0200
			LEAD AZIDE	0.0100
			ZIRCONIUM NICKEL ALLOY	0.0100
129	BOMLET, FRAGMENTATION	CRANE/DG	TNT	100.0000
130	BOOSTER ADAPTER, T45E7	CRANE/DG	TETRYL	100.0000
131	BOOSTER BOMB ADAPTER, T46E3/E3	CRANE/DG	TETRYL	100.0000
132	BOUNDING ANTIPERSONNEL MINE,	CRANE/DG	TRINITROTOLUENE	99.8000
	M16 SERIES		ZIRCONIUM	0.0900
			POTASSIUM NITRATE	0.0800
			BARIUM CHROMATE	0.0500
			CHARCOAL	0.0200
			NICKEL ALLOY	0.0100
			POTASSIUM PERCHLORATE	0.0100
			SULFUR	0.0100
133	C-58 BLASTING CAPS	CRANE/DG/PP	LEAD AZIDE	100.0000
134	COMPOSITION A3	CRANE/DG/PA	RDX	91.0000
			WAX	9.0000
			RDX	98.0000
135	COMPOSITION A5	CRANE/PA	STEARIC	1.5000
136	COMPOSITION B (60/40 CYCLOTOL)	CRANE/PA/DU	RDX	60.0000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			TNT	39.0000
			WAX	1.0000
137	COMPOSITION C4	CRANE/DG	RDX	91.0000
			DI(2-ETHYLHEXYL)SEBAC ATE	5.3000
			POLYISOBUTYLENE	2.1000
			MOTOR OIL	1.6000
138	CYCLATOL	CRANE/PA	RDX	75.0000
			TNT	25.0000
139	DEMOLITION CHARGE M186 FLEX	CRANE/DG	PETN OR RDX	100.0000
140	DETONATOR CORD	CRANE/DG	PETN	100.0000
141	ELECTRIC BLASTING CAP	CRANE/C/PP	RDX	90.0000
			LEAD AZIDE	5.0000
			LEAD STYPHNATE	5.0000
142	ELECTRIC SQUIBS	CRANE/PP	BLACK POWDER	100.0000
143	ELECTRICAL SQUIB, M1	CRANE/PP	POTASSIUM CHLORATE	60.0000
			DIAZONDINITROPHENOL	20.0000
			CHARCOAL	15.0000
			NITROSTARCH	5.0000
144	ELECTRICAL SQUIB, M1A1	CRANE/PP	POTASSIUM CHLORATE	60.0000
			DIAZONDINITROPHENOL	20.0000
			CHARCOAL	15.0000
			NITROSTARCH	5.0000
145	EXPLOSIVE A4	CRANE/PA	RDX	97.0000
			WAX	3.0000
146	FRAGMENTATION HAND GRENADE,	CRANE/DG	RDX	39.1000
	M61		TETRYL PELLETS	35.1500
			TNT	25.1900
			WAX	0.0100
147	FRAGMENTATION HAND GRENADE,	CRANE/DG	RDX	60.3900
	M67		TNT	38.6300
			WAX	0.0100
148	FRAGMENTATION HAND GRENADE,	CRANE/DG	TNT	54.0400
	MK2/M26 SERIES		RDX	42.0400
			TETRYL PELLETS	3.8800
			WAX	0.0100
149	GRENADE, TRAINING, M21	CRANE/DG	POTASSIUM NITRATE	45.6000
			BARIUM CHROMATE	22.5000
			CHARCOAL	9.5000
			SULFUR	6.3000
			NICKEL POWDER	5.5000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
			POTASSIUM PERCHLORATE	5.2000
			ZIRCONIUM POWDER	4.3000
			LEAD STYPHNATE	0.4000
			BARIUM NITRATE	0.2000
			ANTIMONY SULFIDE	0.0010
			TETRACENE	0.0010
150	HAND GRENADE FUZE, M201A1	CRANE/PP	LEAD COMPOUNDS	59.1000
			SILICONE	13.6400
			MAGNESIUM POWDER	13.6300
			TITANIUM	5.2300
			IRON OXIDE	4.5400
			ZIRCONIUM POWDER	1.6600
			BARIUM NITRATE	1.2900
			POTASSIUM CHLORATE	0.4500
			FERRIC OXIDE	0.3900
			POTASSIUM PERCHLORATE	0.2200
			TNT	0.0600
151	HAND GRENADE FUZE, M204 SERIES	CRANE/PP	RDX	100.0000
152	HAND GRENADE FUZE, M213	CRANE/PP	RDX	61.9000
			LEAD COMPOUNDS	34.1500
			BARIUM CHROMATE	1.9200
			NICKEL POWDER	0.4900
			POTASSIUM PERCHLORIDE	0.4500
			ZIRCONIUM POWDER	0.3800
			BARIUM NITRATE	0.2700
			ALUMINUM POWDER, ATOMIZED	0.1200
			ANTIMONY SULFIDE	0.1200
			CALCIUM STEARATE	0.1200
			TETRACENE	0.0600
153	HAND GRENADE PRACTICE FUZE,	CRANE/PP	POTASSIUM NITRATE	75.0000
	M205		CHARCOAL	15.0000
			SULFUR	10.0000
154	HAND GRENADE PRACTICE FUZE,	CRANE/PP	POTASSIUM NITRATE	75.0000
	M228		CHARCOAL	15.0000
			SULFUR	10.0000
155	HBX-1, -3, AND -6	CRANE/DG/PA/DU	RDX	39.6000
			TNT	37.8000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			ALUMINUM	17.1000
			DESENSITIZER (COMP D2)	5.0000
			CACL	0.5000
156	HEAVY, HIGH-EXPLOSIVE ANTITANK	CRANE/DG	RDX	60.0000
	MINE, M15		TNT	39.0000
			WAX	0.9900
			TETRYL	0.0200
157	HMX (HOMOCYCLONITE)	CRANE/PA/DU	HMX	100.0000
158	INCREMENT A, PROPELLING CHARGE	CRANE/PA	NITROCELLULOSE	57.7500
	M90A1 FOR AN 81-MM MORTAR		NITROGLYCERIN	40.0000
			POTASSIUM NITRATE	1.5000
			ETHYL CENTRALITE	0.7500
159	INCREMENT B, PROPELLING CHARGE	CRANE/PA	NITROCELLULOSE	91.4000
	M90A1 FOR AN 81-MM MORTAR		DINITROCELLULOSE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
160	LEAD AZIDE	CRANE/DG	LEAD AZIDE	100.0000
161	LEAD STYPHNATE	CRANE/DG	LEAD STYPHNATE	100.0000
162	M-6 BLASTING CAPS	CRANE/DG/PP	LEAD AZIDE	100.0000
163	M1	CRANE/PA	NITROCELLULOSE	85.0000
			DINITROTOLUENE	10.0000
			DIBUTYLPHTHALATE	5.0000
			DIPHENYLAMINE	5.0000
			LEAD CARBONATE	1.0000
			POTASSIUM SULFATE	1.0000
164	M18A1 ANTIPERSONNEL MINE WITH	CRANE/DG	RDX	99.7900
	M57 FIRING DEVICE		LEAD COMPOUNDS	0.1500
			PETN	0.0500
			BARIUM CHROMATE	0.0100
165	M18A1 ANTIPERSONNEL MINE	CRANE/DG	RDX	100.0000
	WITHOUT FIRING DEVICE			
166	M26	CRANE/PA	NITROCELLULOSE	67.2500
			NITROGLYCERIN	25.0000
			ETHYL CENTRALITE	6.0000
			BARIUM NITRATE	0.7500
			POTASSIUM NITRATE	0.7000
			GRAPHITE	0.3000
167	M3 FLASH REDUCER FOR 8-INCH	CRANE/C	POTASSIUM NITRATE	75.0000
	PROPELLING CHARGE		CHARCOAL	15.0000
			SULFUR	10.0000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
168	M30	CRANE/PA	NITROGUANIDINE	47.7000
			NITROCELLULOSE	28.0000
			NITROGLYCERIN	22.5000
			ETHYL CENTRALITE	1.5000
			CRYOLITE	0.3000
			GRAPHITE	0.1000
169	M13 TRACERS	CRANE/C	STRONTIUM NITRATE	44.0000
			MAGNESIUM POWDER	42.0000
			PERCHLOROPENTACYCL ODECANE	7.0000
			VINYL ALCOHOL	7.0000
170	M6	CRANE/PA	NITROCELLULOSE	87.0000
			DINITROTOLUENE	10.0000
			DIBUTYLPHTHALATE	3.0000
			DIPHENYLAMINE	1.0000
171	M60 IGNITER, TIME BLASTING FUZE	CRANE/DG	LEAD THIOCYANATE	37.5000
			POTASSIUM CHLORATE	37.5000
			BARIUM NITRATE	10.0000
			GLASS	10.0000
			TNT	5.0000
172	M605 FUZE COMBINATION FOR M16	CRANE/PP	POTASSIUM NITRATE	42.0000
	SERIES MINE		BARIUM CHROMATE	25.0000
			CHARCOAL	8.8800
			NICKEL ALLOY	6.0800
			SULFUR	5.9200
			POTASSIUM PERCHLORATE	5.8000
			ZIRCONIUM	4.7200
			POTASSIUM CHLORATE	1.0800
			LEAD COMPOUNDS	0.6200
			ANTIMONY SULFIDE	0.3400
173	M7	CRANE/PA	NITROCELLULOSE	54.6000
			NITROGLYCERIN	35.5000
			POTASSIUM PERCHLORATE	7.8000
			CARBON BLACK	1.2000
			DIPHENYLAMINE	1.0000
			ETHYL CENTRALITE	0.9000
174	M7 PROPELLANT FOR A 105-MM	CRANE/PA	NITROCELLULOSE	54.6000
	CARTRIDGE		NITROGLYCERIN	35.5000
			POTASSIUM PERCHLORATE	7.8000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
			CARBON BLACK	1.2000
			ETHYL CENTRALITE	0.9000
175	M702 SERIES IGNITION CARTRIDGE	CRANE/C	NITROCELLULOSE	91.4000
	FOR 60-MM MORTAR		DINITROCELLULOSE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
176	MILITARY DYNAMITE, LOW VELOCITY	CRANE/DG	TNT	67.8000
			RDX/DYE	17.5000
			TRIPENTAERYTHRITOL	8.6000
			BINDER	4.1000
			CELLULOSE ACETATE	2.0000
177	MILITARY DYNAMITE, MEDIUM	CRANE/DG	RDX	75.0000
	VELOCITY		TNT	15.0000
			STARCH	5.0000
			SAE NO. 10 OIL	4.0000
			POLYISOBUTYLENE	1.0000
178	ND1211 DETONATORS	CRANE/PP	LEAD AZIDE	
			PETN	
179	NITROGUANIDINE (PICRATE)	CRANE/PA	NITROGUANIDINE	100.0000
180	NON-ELECTRIC BLASTING CAP	CRANE/PP/C	RDX	90.0000
			LEAD AZIDE	5.0000
			LEAD STYPHNATE	5.0000
181	OCTOL	CRANE/DG/PA/ DU	HMX	75.0000
			TNT	25.0000
182	OFFENSIVE HAND GRENADE FUZE,	CRANE/PP	PETN OR RDX	100.0000
	M206/M6			
183	OFFENSIVE HAND GRENADE, MK3A2	CRANE/DG	TNT	99.0000
			RDX	0.3800
			BARIUM COMPOUNDS	0.3400
			LEAD COMPOUNDS	0.1400
			NICKEL POWDER	0.0800
			POTASSIUM PERCHLORATE	0.0800
			ZIRCONIUM POWDER	0.0600
184	PBX	CRANE/DG/PA/ C	RDX	95.0000
			FLUORELASTOMERS	5.0000
185	PENTOLITE 10/90	CRANE/PA/DU	TNT	90.0000
			PETN	10.0000
186	PENTOLITE 50/50	CRANE/PA/DU	PETN	50.0000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
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Crane No.	Description	Unit	Component	Wt. %
			TNT	50.0000
187	PETN (PENTAERYTHRITE	CRANE/PA/DU	PETN	100.0000
	TETRANITRATE)			
188	PHOTOFLASH	CRANE/DG/C	LAMINAC	96.8000
			LUPERSOL, DDM	3.0000
			IRON OXIDE	0.2000
189	PIBD FUZES	CRANE/DG	TETRYL	100.0000
190	PRACTICE ANTITANK MINE ACTIVATOR	CRANE/C	POTASSIUM NITRATE	75.0000
	M1		CHARCOAL	15.0000
			SULFUR	10.0000
191	PRACTICE MINE SPOTTING CHARGE,	CRANE/C	POTASSIUM NITRATE	75.0000
	F/APERS, M8		CHARCOAL	15.0000
			SULFUR	10.0000
192	PROJECTILE BURSTER FOR A 105-MM	CRANE/DG	TETRYL	75.0000
	CARTRIDGE, M53/M53-A1		TRINITROTOLUENE	25.0000
193	PROJECTILE, 57 MM, HE M48	CRANE/DG	TNT	100.0000
194	PROJECTILE, 57 MM, RECOILLESS,	CRANE/DG	TNT	100.0000
	HE M306 (WITH TNT)			
195	PROJECTILE, 57 MM, RECOILLESS,	CRANE/DG	PETN	50.0000
	HE M307 (WITH PENTONITE)		TNT	50.0000
196	PROJECTILE, 57 MM, RECOILLESS,	CRANE/DG	RDX	60.0000
	HE M307A1 (WITH COMPOSITION B)		TNT	39.0000
			WAX	1.0000
197	PROJECTILE, 57 MM, RECOILLESS,	CRANE/DG	RDX	60.0000
	HE, M306A1 (WITH COMPOSITION B)		TNT	39.0000
			WAX	1.0000
198	PROPELLING CHARGE FOR A 81-MM	CRANE/PA	DINITROCELLULOSE	81.1400
	CHARGE		NITROCELLULOSE	9.2200
			NITROGLYCERIN	7.6900
			DIPHENYLAMINE	0.8000
			POTASSIUM SULFATE	0.5300
			POTASSIUM NITRATE	0.2900
			GRAPHITE	0.1800
			ETHYL CENTRALITE	0.1400
199	RDX (CYCLONITE)	CRANE/PA/DU	RDX	100.0000
200	ROCKET MORTAR IGNITER, M20A1	CRANE/C	POTASSIUM NITRATE	75.0000
			CHARCOAL	15.0000
			SULFUR	10.0000
201	SAFETY FUZE	CRANE/DG	BLACK POWDER	100.0000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
202	SMOKE POT FUZE, M207A1	CRANE/PP	RED LEAD	61.6200
			SILICON	20.1500
			IRON OXIDE	7.0100
			TITANIUM	6.9400
			ZIRCONIUM POWDER	2.3800
			LEAD THIOCYANATE	0.7100
			POTASSIUM CHLORATE	0.7000
			GROUND GLASS	0.1900
			BARIUM NITRATE	0.1800
			TNT	0.0900
203	SMOKLESS BLACK POWDER	CRANE/PA	NITROCELLULOSE	91.4000
			DINITROTOLUENE	7.0000
			DIPHENYLAMINE	0.9000
			POTASSIUM SULFATE	0.6000
			GRAPHITE	0.2000
204	TETRYL (TRINITROPHENYL-	CRANE/PA/DU	TETRYL	100.0000
	METHYLNITRAMINE)			
205	TETRYTOL	CRANE/PA/DU	TETRYL	75.0000
			TNT	25.0000
206	TIME BLASTING SAFETY FUZE M700	CRANE/DG	SODIUM NITRATE OR POTASSIUM NITRATE	74.0000
			CHARCOAL	16.0000
			SULFUR	10.0000
207	TIME FUZE (BLACK POWDER)	CRANE/DG	SODIUM NITRATE OR POTASSIUM NITRATE	74.0000
			CHARCOAL	16.0000
			SULFUR	10.0000
208	TNT	CRANE/PA/DU	TRINITROTOLUENE	100.0000
209	TRITONAL	CRANE/DG/PA/ DU	TNT	80.0000
			ALUMINUM	20.0000
210	U.S. PROJECTILE, 105 MM,	CRANE/DG	NITROCELLULOSE	40.0000
	ILLUMINATING		MAGNESIUM	19.0000
			SODIUM NITRATE	18.6000
			DINITROTOLUENE	5.9000
			LAMINAC	3.6000
			DIBUTYLPHTHALATE	2.9000
			DIPHENYLAMINE	0.6000
			COBALT NAPHTHANATE	0.0400
			LUPERSOL	0.0400
211	WC846 PROPELLANT	CRANE/PA	NITROCELLULOSE	83.0000
			NITROGLYCERIN	10.0000

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
			DIBUTYLPHTHALATE	6.0000
			POTASSIUM SULFATE	1.0000
212	WC872 PROPELLANT	CRANE/PA	NITROCELLULOSE	82.5000
			NITROGLYCERIN	10.0000
			DIBUTYLPHTHALATE	6.0000
			POTASSIUM SULFATE	1.0000
			TIN DIOXIDE	0.5000
213	XM54 PROJECTILE BURSTER	CRANE/DG	TETRYL	75.0000
			TRINITROTOLUENE	25.0000
214	106mm HEP-T, M346A1 (PROJECTILE	CRANE/DG	RDX	90.3700
	ONLY)		WAX	8.9400
			TETRYL	0.5700
			STRONTIUM NITRATE	0.0510
			MAGNESIUM/ALUMINIUM ALLOY	0.0340
			BARIUM PEROXIDE	0.0170
			POLIVINYL CHLORIDE	0.0060
			LEAD AZIDE	0.0039
			MAGNESIUM POWDER	0.0033
			ANTIMONY SULFIDE	0.0009
			CALCIUM RESINATE	0.0009
			POTASSIUM CHLORATE	0.0009
			GRAPHITE	0.0002
			CARBORUNDUM	0.0001
215	106mm HEAT, M344A1 (PROJECTILE ONLY)	CRANE/DG	RDX	60.2400
			TNT	38.7400
			WAX	0.9900
			STEARIC ACID	0.0096
			LEAD AZIDE	0.0080
			PETN	0.0066
216	EXPLOSIVE D	CRANE/ORR	AMMONIUM PICRATE	100
217	ABL-705 (AHH) DOUBLE BASE CASTING POWDER	CRANE/PA	2-NITRODIPHENYLAMINE	1
			LEAD ETHYLHEXOATE (PBE)	2.3
			LEAD SALICYLATE	2.3
			NITROCELLULOSE	82.4
			NITROGLYCERIN	12
218	CHARGE, PROPELLING 155 MM: M119A2	CRANE/C	CHARCOAL	0.005
			DIBUTYLPHTHALATE	2.8

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE

Crane No.	Description	Unit	Component	Wt. %
			DINITROTOLUENE	9.36
			DIPHENYLAMINE	0.95
			LEAD	0.86
			NITROCELLULOSE	81.37
			POTASSIUM NITRATE	0.11
			SULFUR	0.003
219	CHARGE, PROPELLING, 8-INCH M188	CRANE/C	BLACK POWDER	0.85
			ETHYL CENTRALITE	1.43
			LEAD	0.73
			NITROCELLULOSE	26.69
			NITROGLYCERIN	21.45
			NITROGUANIDINE	44.82
			POTASSIUM SULFATE	0.95
			TITANIUM DIOXIDE & WAX	3.08
220	GRENADE FUZE (M204A2)	CRANE/C/P	ALUMINUM	10.81
			ANTIMONY TRISULFIDE	10.81
			BARIUM NITRATE	21.62
			LEAD STYPHNATE	51.36
			TETRACENE	5.4
221	3.5-INCH ROCKET MOTOR	CRANE/C	CARBON BLACK	1.2
			ETHYL CENTRALITE	0.9
			NITROCELLULOSE	54.6
			NITROGLYCERIN	35.5
			POTASSIUM PERCHLORATE	7.8
222	ELECTRIC IGNITION ELEMENT (M91-1377-00-007-4880)	CRANE/C	CHARCOAL	18.32
			LACQUER	10.31
			LEAD THIOCYANATE	31.93
			POTASSIUM CHLORATE	39.44
223	PROJECTILE SIMULATOR (M74)	CRANE/C	ALUMINUM	10
			CHARCOAL	13.5
			POTASSIUM NITRATE	67.5
			SULFUR	9
224	30-CAL-M1, TRACER WITH I280	CRANE/C/P	ALUMINUM POWDER	0.06
			ANTIMONY TRISULFIDE	0.13
			BARIUM NITRATE	0.29
			CALCIUM RESINATE	2.02
			DINITROTOLUENE	6.79
			DIPHENYLMAINE	1.06
			GRAPHITE	0.3

TABLE A-1
RREPRESENTATIVE REACTIVE WASTE TREATMENT ITEMS
ELIGIBLE FOR OB/OD THERMAL TREATMENT
NSWC CRANE
PAGE 33

Crane No.	Description	Unit	Component	Wt. %
			LEAD STYPHNATE	0.33
			MAGNESIUM POWDER	5.92
			NITROCELLULOSE	71.27
			PETN	0.05
			POTASSIUM SULFATE	0.75
			STRONTIUM NITRATE	6.54
			STRONTIUM OXALATE	0.98
			STRONTIUM PEROXIDE	3.47
			TETRACENE	0.03

<u>Units:</u>

C	=	Incendiary Cage
DG	=	Demolition Ground
DU	=	Dewatering Unit
PA	=	Burn Pans
PP	=	Primer Pit

APPENDIX A-2

REPRESENTATIVE
REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG BURN PANS
NSWC CRANE

TABLE A-2

REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG BURN PANS
NSWC CRANE

Crane No.	Description
89	155-MM PROPELLANT CHARGE CARTRIDGE WITHOUT PRIMER, RB M119 SERIES
90	155-MM PROPELLANT CHARGE CARTRIDGE, GB, M3 SERIES
91	155-MM PROPELLANT CHARGE CARTRIDGE, WB M4 SERIES
106	40-MM TP CARTRIDGE, M781
113	8-INCH PROPELLING CHARGE, GBM1
114	8-INCH PROPELLING CHARGE, WBM2
125	BLACK POWDER
134	COMPOSITION A3
135	COMPOSITION A5
136	COMPOSITION B (60/40 CYCLOTOL)
138	CYCLATOL
145	EXPLOSIVE A4
155	HBX-1, -3, AND -6
157	HMX (HOMOCYCLONITE)
158	INCREMENT A, PROPELLING CHARGE M90A1 FOR AN 81-MM MORTAR
159	INCREMENT B, PROPELLING CHARGE M90A1 FOR AN 81-MM MORTAR
163	M1
166	M26
168	M30
170	M6
173	M7
174	M7 PROPELLANT FOR A 105-MM CARTRIDGE
179	NITROGUANIDINE (PICRATE)
181	OCTOL
184	PBX
185	PENTOLITE 10/90
186	PENTOLITE 50/50
187	PETN (PENTAERYTHRITE TETRANITRATE)

TABLE A-2
REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG BURN PANS
NSWC CRANE
PAGE 2

Crane No.	Description
198	PROPELLING CHARGE FOR A 81-MM CHARGE
199	RDX (CYCLONITE)
203	SMOKELESS BLACK POWDER
204	TETRYL (TRINITROPHENYLMETHYLNITRAMINE)
205	TETRYTOL
208	TNT
209	TRITONAL
211	WC846 PROPELLANT
212	WC872 PROPELLANT
217	ABL-705 (AHH) DOUBLE BASE CASTING POWDER

APPENDIX A-3

REPRESENTATIVE
REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG PRIMER PIT
NSWC CRANE

TABLE A-3

REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG PRIMER PIT
NSWC CRANE

Crane No.	Description
1	10 GAUGE BLANKS
9	1305-A659 CTG 20 MM HEI-T M242A1 SNGL RD
10	1305-A662 CTG 20 MM HEI M56 SERIES LNKD
11	1305-A701 CTG 20-MM HEI M56A3 SERIES LNKD
12	1305-A775 CTG 20-MM HEI M97 SINGLE RD
13	1305-A776 CTG 20-MM INC M96 SNGL RD
14	1305-A785 CTG 20 MM HEI MZ10 SNGL RD
23	1305-A884 20 MM API M53 LNKD
31	1305-B120 CTG 30-MM TP M788 LNKD RHF
39	1310-B632 CTG, 60 MM M49 SERIES
85	1390-N519 PRIMER PERC M57
95	22 CALIBER
96	22 MM SUBCALIBER DEVICE
99	30 CALIBER BLANK
100	30 CALIBER CARBINE
101	38 SPECIAL
108	45 CALIBER BLANKS
110	7.62 BLANK
111	7.62-MM GRENADE RIFLE CARTRIDGE, M64
119	81-MM MORTAR IGNITION CARTRIDGE, M6
126	BLASTING CAPS
133	C-58 BLASTING CAPS
141	ELECTRIC BLASTING CAP
142	ELECTRIC SQUIBS
143	ELECTRICAL SQUIB, M1
144	ELECTRICAL SQUIB, M1A1
150	HAND GRENADE FUZE, M201A1
151	HAND GRENADE FUZE, M204 SERIES
152	HAND GRENADE FUZE, M213

TABLE A-3
REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG PRIMER PIT
NSWC CRANE
PAGE 2

Crane No.	Description
153	HAND GRENADE PRACTICE FUZE, M205
154	HAND GRENADE PRACTICE FUZE, M228
162	M-6 BLASTING CAPS
172	M605 FUZE COMBINATION FOR M16 SERIES MINE
180	NON-ELECTRIC BLASTING CAP
182	OFFENSIVE HAND GRENADE FUZE, M206/M6
202	SMOKE POT FUZE, M207A1
220	GRENADE FUZE (M204A2)
224	30-CAL-M1, TRACER WITH I208

APPENDIX A-4

REPRESENTATIVE
REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG INCENDIARY CAGE
NSWC CRANE

TABLE A-4

REPRESENTATIVE REACTIVE WAST MATERIAL ITEMS TREATED AT THE ABG INCENDIARY CAGE NSWC CRANE

Crane No.	Description
119	81-MM MORTAR IGNITION CARTRIDGE, M6
120	90-MM CARTRIDGE, AP-T, M318 SERIES
141	ELECTRIC BLASTING CAP
167	M3 FLASH REDUCER FOR 8-INCH PROPELLING CHARGE
169	M13 TRACERS
175	M702 SERIES IGNITION CARTRIDGE FOR 60-MM MORTAR
180	NON-ELECTRIC BLASTING CAP
184	PBX
188	PHOTOFLASH
190	PRACTICE ANTITANK MINE ACTIVATOR, M1
191	PRACTICE MINE SPOTTING CHARGE, F/APERS, M8
200	ROCKET MORTAR IGNITER, M20A1
218	CHARGE, PROPELLING 155 MM: M119A2
219	CHARGE, PROPELLING, 8-INCH M188
220	GRENADE FUZE (204A2)
221	3.5-INCH ROCKET MOTOR
222	ELECTRIC IGNITION ELEMENT (M91-1377-00-007-4880)
223	PROJECTILE SIMULATOR (M74)
224	30-CAL-M1, TRACER WITH I280

APPENDIX A-5

REPRESENTATIVE
REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG DEWATERING UNITS
NSWC CRANE

TABLE A-5

RERPESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ABG DEWATERING UNITS
NSWC CRANE

Crane No.	Description
136	COMPOSITION B (60/40 CYCLOTOL)
155	HBX-1, -3, AND -6
157	HMX (HOMOCYCLONITE)
181	OCTOL
185	PENTOLITE 10/90
186	PENTOLITE 50/50
187	PETN (PENTAERYTHRITE TETRANITRATE)
199	RDX (CYCLONITE)
204	TETRYL (TRINITROPHENYLMETHYLNITRAMINE)
205	TETRYTOL
208	TNT
209	TRITONAL

APPENDIX A-6

REPRESENTATIVE
REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ORR
NSWC CRANE

TABLE A-6

REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE ORR
NSWC CRANE

Crane No.	Description
136	COMPOSITION B
145	COMPOSITION A4
216	COMPOSITION D

APPENDIX A-7

REPRESENTATIVE
REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE DEMOLITION GROUND
NSWC CRANE

TABLE A-7

REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE DEMOLITION GROUND
NSWC CRANE

Crane No.	Description
1	10 GAUGE BLANKS
2	105-MM TP-T CARTRIDGE, M393A1
3	105-MM APDS-T CARTRIDGE, M392A2
4	105-MM APFSDS-T CARTRIDGE, M735
5	105-MM BLANK CARTRIDGE, M395
6	105-MM HEP-T CARTRIDGE, M393A2
7	105-MM HIGH EXPLOSIVE CARTRIDGE WITH PD FUZE (M1)
8	105-MM HIGH EXPLOSIVE CARTRIDGE WITHOUT FUZE, M1
9	1305-A659 CTG 20 MM HEI-T M242A1 SNGL RD
10	1305-A662 CTG 20 MM HEI M56 SERIES LNKD
11	1305-A701 CTG 20-MM HEI M56A3 SERIES LNKD
12	1305-A775 CTG 20-MM HEI M97 SINGLE RD
13	1305-A776 CTG 20-MM INC M96 SNGL RD
14	1305-A785 CTG 20 MM HEI MZ10 SNGL RD
15	1305-A806 CTG-20 MM API MK107 MOD 5 SINGLE ROUND
16	1305-A809 CTG-20 MM HPT T131 SINGLE ROUND
17	1305-A811 CTG-20 MM TP MK105 SNGL RD
18	1305-A812 CTG-20 MM AP-T MK108 SNGL RD
19	1305-A872 CTG-20 MM API MK107 MOD 1 SINGLE ROUND
20	1305-A873 CTG-20 MM AP-T MK108 MOD 1 SNGL RD
21	1305-A874 CTG-20 MM TP MK105 MOD 1 SNGL RD
22	1305-A876 CTG-20 MM TP MK105 MOD 0 SNGL RD
23	1305-A884 20 MM API M53 LNKD
24	1305-A892 CTG-20 MM HPT 54A1 SNGL RD
25	1305-A974 CTG 25-MM ADP-T M791 LNKD
26	1305-B112 CTG 30-MM HEI MK3Z LNKD LHF
27	1305-B113 CTG 30-MM TP MK4Z LNKD LHF
28	1305-B114 CTG 30-MM HEI M3Z-1 LNKD RHF
29	1305-B114 CTG 30-MM HEI M799 LNKD LHF

TABLE A-7
REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE DEMOLITION GROUND
NSWC CRANE
PAGE 2

Crane No.	Description
30	1305-B115 CTG 30-MM TP MK4Z LNKD RHF
31	1305-B120 CTG 30-MM TP M788 LNKD RHF
32	1305-B125 CTG 30-MM HEI M799 LNKD RHF
33	1310-B551 CTG 40-MM AP M81A1 CLIPPED
34	1310-B559 40-MM EI-T-SD 4/CLIP
35	1310-B569 CTG 40-MM HE M406
36	1310-B586 CTG-57 MM HE M306 A1
37	1310-B587 CTG 57-MM HEAT M307 SERIES
38	1310-B588 CTG-57 MM TP M306 A1
39	1310-B632 CTG, 60 MM M49 SERIES
40	1310-B643 CTG 60-MM HE M888
41	1314-C306 CTG-3 IN 50 CAL HE-IR MK33
42	1315-C027 CTG-75 MM HE M48
43	1315-C302 CTG 3 IN 50 CAL AA MK27 FLASHLESS
44	1315-C052 CTG-76 MM HEAT M310
45	1315-C053 CTG 75 MM HEP-T M349
46	1315-C113 76-MM HE PD MX166
47	1315-C122 76-MM HE M352
48	1315-C136 CTG-3 IN 50 CAL VT MK33
49	1315-C150 CTG-3 IN 50 CAL VT NSD MK33
50	1315-C152 CTG-3 IN 50 CAL VT SD MK33
51	1315-C162 CTG-3 IN 50 CAL VT NON-FRAG MK33
52	1315-C164 CTG-3 IN 50 CAL VT NON-FRAG MK33
53	1315-C172 CTG-3 IN 50 CAL ILUM MK26 MODS
54	1315-C178 CTG-3 IN 50 CAL BL-T MK27
55	1315-C179 CTG-3 IN 50 CAL BL-P MK27
56	1315-C218 CTG-3 IN 50 CAL HC MK27
57	1315-C222 CTG 81 MM HE M362 SERIES W/PD FUZE
58	1315-C223 CTG 81 MM HE M362 W/O FUZE

TABLE A-7
REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE DEMOLITION GROUND
NSWC CRANE
PAGE 3

Crane No.	Description
59	1315-C296 CTG-3 IN 50 CAL HC MK 27
60	1315-C299 CTG 3 IN 50 CAL AA MK27 NON-FL
61	1315-C305 CTG 3 IN 50 CAL ILLUM MK25 MODS
62	1315-C307 CTG 3 IN 50 CAL HE-IR MK33
63	1315-C319 CTG 50 CAL VT NON-FRAG MK31
64	1315-C320 CTG-3 IN 50 CAL VT NON-FRAG MK31
65	1315-C321 CTG 3 IN 50 CAL HE-IR MK31 NON-FL
66	1315-C322 CTG 3 IN 50 CAL HE-IR MK31 FLASHLESS
67	1315-C338 CTG-3 IN 50 CAL BL-P MK29/27/185 FLASHLESS
68	1315-C341 CTG-3 IN 50 CAL BL-P MK29/27/185 FLASHLESS
69	1315-C347 CTG-3 IN 50 CAL HC MK33 FLASHLESS
70	1315-C348 CTG-3 IN 50 CAL HC MK33 NON-FL
71	1315-C373 CTG 3 IN 50 CAL VT NON-FRAG MK36 NFL
72	1315-C375 CTG 3 IN 50 CAL VT NON-FRAG MK36 NFL
73	1315-C429 CTG 105-MM HEP-1 M393 SERIES
74	1315-C430 105 MM HE M1 W/O FUZE
75	1315-C510 CTG 105-MM TP-T M467
76	1315-C699 CTG 4.2 IN HE M329A2 W/O FUZE
77	1315-C800 PJ & PJCHG - 120 MM HE T15E3
78	1315-C801 PJ & PRCHG 120 MM HE M356
79	1315-C807 PJ & PPCHG 120 MM HEAT-TM 469
80	1320-D151 BRUSTER PROJ. M71 F/GAS PROJ. 155 MM
81	1320-D153 BRUSTER PROJ. M83
82	1320-D485 PROJ. 155-MM HE 101
83	1320-D569 PROJ. 155-MM HE 101
84	1375-M757 CHG ASSY DEMO 183 COMP C-4 8X2.5 LBS
86	152-MM PROJECTILES
87	155-MM HIGH-EXPLOSIVE PROJECTILE M107 (TNT) 00-529-7331

TABLE A-7
REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE DEMOLITION GROUND
NSWC CRANE
PAGE 4

Crane No.	Description
88	155-MM HIGH-EXPLOSIVE PROJECTILE, RAP M549 SERIES (COMPOSITION B)
92	165-MM HEP CARTRIDGE, M123A1 (COMPOSITION A3)
93	175-MM HIGH-EXPLOSIVE PROJECTILE M437A1/M37A2 (TNT)
94	175-MM HIGH-EXPLOSIVE PROJECTILE, M437A2 (COMPOSITION B)
95	22 CALIBER
96	22 MM SUBCALIBER DEVICE
97	3"/50 FUZES
98	3"/50 PROJECTILES
99	30 CALIBER BLANK
100	30 CALIBER CARBINE
101	38 SPECIAL
102	40-MM HEDP CARTRIDGE, M433
103	40-MM HIGH-EXPLOSIVE CARTRIDGE, LNKD, M383E1
104	40-MM HIGH-EXPLOSIVE CARTRIDGE, M406
105	40-MM PAP CARTRIDGE, M576
107	40-MM TP LNKD CARTRIDGE, M385
108	45 CALIBER BLANKS
109	60 MM MORTAR, TRAINING, M69
110	7.62 BLANK
112	76-MM TPT CARTRIDGE (M340A1)
115	81-MM CARTRIDGE W/PD FUZE, TPM43A1
116	81-MM HIGH-EXPLOSIVE CARTRIDGE WITH PD FUZE, M374 SERIES
117	81-MM HIGH-EXPLOSIVE CARTRIDGE WITH PD FUZE, M374 SERIES
118	81-MM HIGH-EXPLOSIVE CARTRIDGE, M43A1, WITH PD FUZE, M525
121	90-MM HEAT CARTRIDGE, M371A1

TABLE A-7
REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE DEMOLITION GROUND
NSWC CRANE
PAGE 5

Crane No.	Description
122	90-MM HEAT PROJECTILE
123	90-MM HIGH-EXPLOSIVE CARTRIDGE WITH PD FUZE (M71)
124	90-MM HIGH-EXPLOSIVE CARTRIDGE WITHOUT FUZE, M71
126	BLASTING CAPS
127	BOMB NOSE, FUZE, M904 E2/E3
128	BOMB TAIL FUZE, M905
129	BOMLET, FRAGMENTATION
130	BOOSTER ADAPTER, T45E7
131	BOOSTER BOMB ADAPTER, T46E3/E3
132	BOUNDING ANTIPERSONNEL MINE, M16 SERIES
133	C-58 BLASTING CAPS
134	COMPOSITION A3
137	COMPOSITION C4
139	DEMOLITION CHARGE M186 FLEX
140	DETONATOR CORD
146	FRAGMENTATION HAND GRENADE, M61
147	FRAGMENTATION HAND GRENADE, M67
148	FRAGMENTATION HAND GRENADE, MK2/M26 SERIES
149	GRENADE, TRAINING, M21
155	HBX-1, -3, AND -6
156	HEAVY, HIGH-EXPLOSIVE ANTITANK MINE, M15
160	LEAD AZIDE
161	LEAD STYPHNATE
162	M-6 BLASTING CAPS
164	M18A1 ANTIPERSONNEL MINE WITH M57 FIRING DEVICE
165	M18A1 ANTIPERSONNEL MINE WITHOUT FIRING DEVICE
171	M60 IGNITER, TIME BLASTING FUZE
176	MILITARY DYNAMITE, LOW VELOCITY
177	MILITARY DYNAMITE, MEDIUM VELOCITY

TABLE A-7
REPRESENTATIVE REACTIVE WASTE MATERIAL ITEMS
TREATED AT THE DEMOLITION GROUND
NSWC CRANE
PAGE 6

Crane No.	Description
181	OCTOL
183	OFFENSIVE HAND GRENADE, MK3A2
184	PBX
188	PHOTOFLASH
189	PIBD FUZES
192	PROJECTILE BURSTER FOR A 105-MM CARTRIDGE, M53/M53-A1
193	PROJECTILE, 57 MM, HE M48
194	PROJECTILE, 57 MM, RECOILLESS, HE M306 (WITH TNT)
195	PROJECTILE, 57 MM, RECOILLESS, HE M307 (WITH PENTONITE)
196	PROJECTILE, 57 MM, RECOILLESS, HE M307A1 (WITH COMPOSITION B)
197	PROJECTILE, 57 MM, RECOILLESS, HE, M306A1 (WITH COMPOSITION B)
201	SAFETY FUZE
206	TIME BLASTING SAFETY FUZE M700
207	TIME FUZE (BLACK POWDER)
209	TRITONAL
210	U.S. PROJECTILE, 105 MM, ILLUMINATING
213	XM54 PROJECTILE BURSTER
214	106mm HEP-T, M346A1 (PROJECTILE ONLY)
215	106mm HEAT, M344A1 (PROJECTILE ONLY)

APPENDIX B

BANG BOX TEST PROGRAM
OB/OD EMISSION FACTOR DETERMINATION

AMCCOM/USAFACC OB/OD
Emission Studies

Development of Base Emission Factors

1. AMCCOM/USAFACC OB/OD Emission Studies

1.1 Introduction

A test planning directive to conduct testing of open detonation (OD) of explosives and open burning (OB) of propellants in support of U.S.Army Armament, Munitions and Chemical Command (AMCCOM) was issued on April 28, 1988. A Technical Steering Committee (TSC) Symposium was held in July, 1988 followed shortly by commencement of testing. Testing of small quantities (i.e. 0.5 pounds) was conducted during December, 1988, January and February, 1989, followed by Field Testing of large quantities (1,980 to 2,030 pounds in detonation tests and 3,140 to 7,040 pounds in burn tests) during June and October, 1989 and August and September, 1990). Subsequently a series of tests was conducted by the U.S. Air Force Air Combat Command (USAFACC) to extend the studies to energetics used by the Air Force.

The remainder of this section summarizes the studies, consolidates and compares the data, and presents the complete set of emission factors.

1.2 History of Bang Box Test Development

Planning

In the mid-1980s, AMCCOM foresaw the need for characterizing emissions resulting from the OB/OD of propellants and explosives and embarked on an ambitions program to obtain data which would be suitable for the needs of environmental agencies in their role of issuing permits to operate such activities. Following a preliminary test conducted to determine technology gaps, a symposium was held in July, 1988 to consider means of resolving the gaps. The symposium reviewed existing and emerging technologies potentially suited to OB/OD testing needs. The symposium produced numerous recommendations and a technical steering committee (TSC) was formed to provide technical direction.

The TSC proposed a list of 71 target analytes for consideration in developing analysis plans. As analyses from the initial tests became available the list was refined, some analytes being withdrawn and others added. The revised list is presented as Table 1. (Originally Tables 1.1a, 1.1b and 1.1c from Volume 2, Test Development of the three volumes describing the Bang Box Test Series.)

The U.S. Environmental Protection Agency (U.S. EPA) provided technical guidance and support during the planning of tests and execution phases of the entire project.

TABLE 1

AMCCOM TARGET ANALYTES

Carbon Monoxide	2-Methylnaphthalene
Carbon dioxide	Naphthalane
Ozone	Pyrene
Nitrogen oxides (NO, NO_2, NO_x)	1-Methylnaphthalene
Sulfur dioxide	Biphenyl
Hydrogen cyanide	Phenanthrene
Hydrogen chloride	Benz[c]acridine
Total Suspended particulate	Dibenzofuran
PM_{10} particulate	1,6-Dinitropyrene
C_{10} to C_{20} hydrocarbons	2-Nitronaphthalene
2,4-Dinitrotoluene	1-Nitropyrene
2,6-Dinitrotoluene	4-Nitrosodiphenylamine
4-Nitrophenol	2-Nitrodiphenylamine
Phenol	4-Nitrodiphenylamine
Toluene	N-Nitrosodiphenylamine
Benzene	Polychlorinated dibenzo-dioxins
2,4,6-Trinitrotoluene	Polychlorinated dibenzo-furans
1,3,5-Trinitrobenzene	Diphenylamine
Resorcinol	Isophorone diisocyanate
Salicylic acid	2,5-Diphenyloxazole
Nitroglycerine	1,1,3-Trimethyl-3-phenylindane
Triacetin	Antimony
Di-n-propyl adipate	Arsenic
Phenyl disodecyl phosphite	Barium
Dioctyl sebacate	Cadmium
2,2 Methylene bis-(4 methyl-6-t-butylphenol)	Chromium
5-Ethyl-1,3-diglycidyl-5-methyl hydantoin diepoxide	Lead
Diethylenetriamine	Beryllium
Benz[a]anthracene	Mercury
Benzo[a]pyrene	Nickel
2-Napthylamine	Fluoride ion
Dibenz[a,h]anthracene	Nitrate ion

Preliminary Test Development

From November 28, 1988 to February 16, 1989 a series of trials was conducted at Sandia National Laboratories (SNL, Albuquerque) in a 1000 m^3 hemisphere constructed of a plasticized fabric which could stretch to accommodate small detonations. This facility, known as the "Bang Box", was fitted with instruments and equipment suggested during the symposium and selected by the TSC. The initial days of testing (December 1, 1988 to December 7, 1988) consisted of testing to establish that the atmosphere within the bang box was homogeneous and established a method to evaluate the bang box volume using SF_6 as a tracer gas. The testing established that the atmosphere was indeed homogeneous after a short period of mixing with fans. The volume of the bang box established with the tracer gas was approximately the volume estimated knowing the diameter and assuming that the box was a perfect hemisphere. Nevertheless all results utilized the volume estimated with the tracer gas since the volume could change appreciably. Preliminary testing also involved a TNT detonation on December 7, 1988 to allow assessment of the monitoring and sampling equipment.

Bang Box Trials

Trials were conducted during the period from January 31, 1989 to February 16, 1989. Three TNT detonations, one double-based propellant burn and one composite propellant burn were completed. The number of tests completed and the number of sampling and analytical techniques evaluated were adequate to allow assessments for the development of sampling and analytical techniques for future testing. These tests showed that the bang box, as a fully enclosed and characterized structure, was sufficiently large to support full combustion processes and permit sampling of emissions from a cloud of known volume.

Field Tests

In June, 1989 AMCCOM initiated a two-year-long series of three large scale OB/OD field tests which included detonations with explosive charges up to 2,030 lbs. and burns using up to 7,040 lbs of propellants in a manner corresponding to normal treatment procedures. These produced large plumes which were sampled by the equipment and instruments that had proven satisfactory during bang box testing. For purposes of the field tests these instruments were mounted aboard an airplane. Project scientists followed the quality control, assay and analytical procedures developed during the earlier bang box tests.

Highlights of the testing (bang box plus field tests) include a new generation of instruments capable of identifying and quantifying difficult compounds at the parts per trillion (ppt) or nonagram (ng) level; and the ability to capture a representative sample from a nonhomogeneous cloud (by using the carbon balance method rather than relying on the traditional, but often inaccurate, cloud volume method). In addition, highlights included formation of a team of experts, the TSC, and participation of the U.S. EPA in a quality assurance capacity throughout the planning, testing and assay. Undoubtedly the greatest singular achievement was establishing a relationship between bang box testing and field testing thus permitting the more efficient bang box testing to replace the time-consuming and expensive field testing.

U.S. Air Force Bang Box Tests

The U.S. Air Force Air Combat Command (USAFACC) sponsored testing of selected munitions in a series of bang box tests conducted at Dugway Proving Grounds during February, 1993. This series of tests used protocols and techniques developed during the AMCCOM tests. Testing included four munitions prepared for testing in a manner paralleling open-air treatment procedures followed by the USAF at its treatment sites. Samples were collected using high volume samplers and personal samplers.

High volume samples were analyzed both by SFC/MS and GC/MS (using EPA method 8270) methods and the personal samples were analyzed by GC/MS - 8270. Target analytes were essentially the same as those used in the earlier AMCCOM tests.

1.3 AMCCOM Study

1.3.1 Sandia National Laboratory (SNL) Bang Box Tests

The tests in the SNL bang box conducted from January 31, 1989 to February 16, 1989 utilized TNT for the explosive tests and both double based and composite propellants for the burn tests. TNT, (0.5 lb blocks), was chosen for the explosive to provide a worst case scenario, that is an explosive expected to produce relatively large quantities of pollutants for a given source mass. TNT has the potential to generate relatively large quantities of Products of Incomplete Combustion (PICs) due to its 74 percent negative oxygen balance. Oxygen balance is a measure of the quantity of oxygen needed per unit of explosive to completely convert carbon, hydrogen, and nitrogen to stable oxides. This means that for each 100 grams of TNT, additional oxygen (over 100 grams) must be added to convert the C, H, and N in the TNT to stable oxides (CO_2, H_2O and NO_2). Other common explosives have lower oxygen deficiencies. For example:

nitrocellulose	-38.7
nitroglycerine	+3.5
nitroguanidine	-30.8
ammonium picrate	-52.0
HMX	-21.6
RDX	-21.6
tetryl	-47.4

Therefore, of the above explosives, only nitroglycerine has sufficient oxygen in the molecule to oxidize all C, H, and N in the molecule to stable gases. TNT, being the most oxygen deficient has the greatest tendency to produce PICs and also has the greatest tendency to have the parent compound emitted from the explosion. Expressed in another way, the TNT molecule has only enough oxygen to convert 26 percent of the carbon to CO_2 (and hydrogen to H_2O and nitrogen to NO_2). Secondary combustion which occurs by entrainment of oxygen from the ambient air into the detonation fireball is necessary for the majority (74 percent) of the combustion that occurs. The efficiency of secondary combustion is less for TNT than for any of the other common explosives.

Nevertheless, all emission factors developed during this testing indicate destruction efficiencies far above 99.99 percent. The overall EF for TNT from the combined tests (AMCCOM and USAFACC), is 2.7 E-6, which indicates a DRE of 99.9997 percent. The highest average EF, obtained in the Air Force block TNT tests was 8.2 E-6. This is equivalent to a DRE of 99.9992 percent. Within that test the highest single result was a EF of 1.02 E-5, which is equivalent to a DRE of 99.999 percent. A DRE of only 99.99 percent would have resulted in an EF of 1.0E-4. In addition generally the bang box tests resulted in higher EFs (therefore lower DREs) than the field tests conducted with far larger amounts of explosives.

The quantity selected was known to ensure a detonation of less-than-maximum efficiency, therefore tending to potentially overestimate PICs. Detonators consisted of pentaerythritol tetranitrate and RDX. The double base propellant consisted primarily of nitrocellulose (51 percent) and nitroglycerine (39 percent). The composite propellant consisted primarily of ammonium perchlorate (85 percent) a hydroxyl-terminated polybutadiene (8 percent). Both propellants had "small amounts of additio

chemicals for purposes such as stability, burning rate modification, physical property enhancement or as a processing aid". (Volume 2, pp 1-5 to 1-6 of the January 1992 report on the AMCCOM tests.) The "additional chemicals" in the double based propellant consisted of triacetin (2.7 percent), di-n-propyl adipate (1.6 percent), 2-nitrodiphenylamine (2.0 percent), lead salicylate (1.5 percent), lead resorcylate (0.5 percent), copper salicylate (2.0 percent), and Candelilla wax (0.1 percent). The "additional chemicals" in the composite propellant included dioctylsebacate (4.5 percent), aluminum oxide (1.0 percent), isophorone diisocyanate (0.6 percent), and smaller amounts of 5-ethyl-1,3 diglycidyl-5-methyl hydantoin diepoxide (0.3 percent), 2,2'-methylene bis (4-methyl-6-t-butyl phenol) (0.2 percent), phenyl diisodecylphosphite (0.2 percent) and diethylenetriamine (0.08 percent).

Complete composition data for propellants is given in Volume I of the Field Studies (Pages 3-37 to 3-47). TNT detonation tests were conducted on January 31, 1989, February 2, 1989, and February 6, 1989. The double base propellant burn test was conducted on February 9, 1989 and the composite propellant burn test was conducted on February 16, 1989.

Several additional tests were conducted during this time frame that are not included in the determination of emission factors. For example a foam-attenuated TNT detonation was conducted on February 13, 1989 to assess the ability of commercially available firefighting foam to serve as a surrogate for soil as a blast mitigant in chamber detonation trials. Data collection was limited to gases and volatile organics. In addition a multi detonation TNT test was conducted on February 8, 1989 to evaluate the collection of a sufficient sample of detonation emissions to facilitate detection of very low levels of trace/exotic organic detonation products. The limited data available from these two tests and a OD trial conducted on February 15, 1989, are not included in emission factor data presented in the AMCCOM reports or in this report.

Generally, sampling and analyses were conducted by several techniques to allow evaluation of each technique. Some sampling techniques were unsuccessful (e.g. the CO real time sampling instrument). Comparison of the supercritical fluid chromatography (SFC)/mass spectrometry and gas chromatographic (GC)/mass spectrometry indicated that either is sufficiently sensitive as an analysis technique to detect and quantify semivolatile organic target analytes. SFC is superior for some of the less thermally stable species (e.g. nitrosamines and some nitro compounds).

Appendices 2-9 and 2-10 contain emission factor data where available for all chemicals considered. Included in these appendices are all of the chemicals considered (from Appendix 2-7) and all AMCCOM/U.S. FACC test data. Tables 2 and 3 contain emission factors (lbs/lb) for chemicals of concern in the Health Risk Assessment for OB and OD respectively. These tables contain data from both AMCCOM and USAFACC testing. Commentary on the data and methods of averaging is presented in section 2.2.4.5.

Foam Attenuation Study

Use of firefighting foam in place of soil as a blast mitigant was tested in the bang box on February 13, 1989. A 221.6 gram TNT block was used and a heavy duty plastic cage was used to contain the foam. The cage, 183 cm in diameter and 92 cm high was filled with foam. Components of the foam were: a glycol ether, a 5-carbon alcohol, xanthan biopolymer, formaldehyde, a sulfonate surfactant and fatty alcohols (C_{12}-C_{14}). The foam attenuated test produced generally lower concentrations of CO_2, and higher concentrations of CO, NO_2, NO, and volatile organics than did the various non-attenuated TNT detonations. The main effects of the foam were mitigation of the blast and noise and reduction of the combustion efficiency as measured by CO_2 to CO ratio. A viscous polymer residue was spread widely about the chamber floor.

1.3.2 Field Test Series

The AMCCOM field tests were conducted in three phases.

- Phase A, conducted from June 13, 1989 to June 21, 1989, included TNT surface detonations and propellant burns with a triple base propellant. The M30 propellant consisted of nitrocellulose (28 percent), nitroglycerine (22.5 percent), nitroguanidine (47.7 percent), ethyl centralite (1.5 percent) with minor amounts of graphite and volatiles (Volume 1, p 3-42 of the January 1992 report on the AMCCOM field studies).

- Phase B, conducted from October 16, 1989 to October 31, 1989 included TNT detonations and propellant burns of manufacturing residue. A variety of propellant types was used during the phase B test burns. The purpose of mingling propellant and inhibitor materials was to represent waste propellants generated at manufacturing facilities. Three different combinations of six different propellants with cellulose acetate inhibitor were burned. (Volume 2, p 3-44 of the January 1992 report on the AMCCOM studies).

- Phase C was conducted from August 7, 1990 to September 18, 1990. Surface detonations conducted during Phase C included detonations of TNT, Explosive D, Composition B and RDX. Propellant burns conducted during Phase C included propellants M-1 and M-6 and manufacturing residue. Explosive D consisted of 99.9 percent ammonium picrate with minor amounts of sulfates, ash and chloroform insoluble and water insoluble impurities. (Vol 2, p 3-38 of the January 1992 report on the AMCCOM studies). Composition B consisted of RDX (59.5 percent), TNT (39.5 percent) and Composition D-2 Wax (1 percent) (Vol. 2, p 3-37 of the January 1992 report on the AMCCOM studies). The RDX explosive, PBXN-6, consisted of R[illegible] (95 percent) and Viton A (5 percent) (Vol.2, p 3-39 of the January 1992 report on t[illegible] AMCCOM studies). The manufacturing residue consisted of propellants in the form of rolls 4 inches wide by 15 inches diameter by 0.08 inches thick which would have been extruded if its manufacturing process had not been interrupted. Residues were mixtures of two different propellants, both of which were primarily nitrocellulose and nitroglycerine. (Vol 2, pp 3-42 and 3-47 of the January 1992 report on the AMCCOM studies). Propellant M-1 consisted of nitrocellulose (85 percent), dinitrotoluene (10 percent), dibutylphthalate (5 percent) and minor amounts of diphenylamine, potassium sulfate, solvents, and water. (Vol. 2, p 3-40 of the January 1992 report on the AMCCOM studies). Propellant M-6 consisted of Nitrocellulose (87.7 percent) dinitrotoluene (9.7 percent) dibutylphthalate (2.5 percent) and minor amounts of diphenylamine, potassium sulfate, water and solvents. (Vol.2, p 3-41 of the January 1992 report on the AMCCOM studies).

1.3.3 Suspended versus Surface Detonations

During Phases B and C of the Field Studies, several detonations of TNT were conducted with the TNT suspended above the ground surface. Emission factors were calculated from the suspended tests conducted and compared with the EFs calculated from all three phases of detonations conducted at surface level. Table 4 summarizes these comparisons.

TABLE 4
EMISSION FACTORS
SURFACE DETONATIONS VERSUS
SUSPENDED DETONATIONS

Chemical	Emission Factor (g/g)	
	Surface Detonations	Suspended Detonations
carbon monoxide	0.051	0.0071
nitric oxide	0.0012	0.0024
nitrogen dioxide	0.0020	0.0016
methane	0.0014	0.00078
TNMHCs	0.0018	0.0026
benzene	0.000096	0.000033
2,4,6-trinitrotoluene	143E-9	93E-9
naphthalene	2100E-9	906E-9
benz(a)anthracene	87E-9	193E-9
dibenzofuran	88E-9	125E-9
total particulates	1.29	0.25

The data show that the amount of particulate (soil) entrained in the surface detonation is much greater than that from the suspended detonation. The greater amount of CO indicates, as would be expected, the efficiency of combustion in the surface detonation is less than that of the suspended detonation. The greater amounts of methane, benzene and naphthalene produced in the surface detonations support this premise. However, the smaller amounts of benz(a)anthracene, dibenzofuran and especially the total non-methane hydrocarbons indicate that this less efficient combustion does not produce greater amounts of more complex hydrocarbons. The emission factor for total particulate matter may be extremely variable from test to test (depending on many factors such as the exact position of the plane during the pass through the cloud). Also this will vary to a large degree with the moisture in the soil. It is mentioned on page 4-10 of Volume 1 of the January 1992 report AMCCOM Field Studies that "Ground crews noted very different soil conditions during the various testing phases". In addition, the above calculation of a PM-10 EF, assumes that the carbon concentration of 34.95 mg/m^3 given on page 4-2 is a good estimate for all tests. Considering that the bulk of the carbon is found as CO_2 and that the CO_2 emission factor did not vary substantially from test to test this may be a somewhat reasonable assumption. This assumption is probably the biggest source of error in the calculation of the EF for total particulate matter. In any event it is reasonable to conclude that the EF for total particulate matter is far larger for surface detonations than for suspended detonations due to soil entrainment.

1.4 USAFACC Study

The USAFACC extended the bang box tests in early 1993 to OD of explosives of interest to their treatment operations. The results of this study were presented to U.S. EPA Region VIII in October, 1993.

1.4.1 Dugway Proving Ground Bang Box Testing

A new bang box was constructed at Dugway Proving Grounds (DPG) for this testing, which took place from February 8, 1993 to February 12, 1993. A total of 15 OD tests were completed, three each on four munitions utilized heavily by Air Force locations and three on block TNT. The block TNT testing was performed partly to provide continuity to previous OD testing at SNL. During the planning stages for this testing the DPG project officer maintained frequent contact with the U.S. EPA Region VIII. During the actual testing the U.S. EPA member of the TSC took particular interest in QA/QC measures by observing test operations, visiting supporting laboratories, providing personnel for systems audits and preparing the QA/QC section of the final report.

The USAFACC testing included a three tiered sampling and analysis methodology. Two samples were collected in conventional high volume ambient air samplers. One sample was analyzed by Supercritical Fluid Chromatography/Mass Spectrometric (SFC/MS) procedures and the other by Gas Chromatographic/Mass Spectrometric (GC/MS) procedures, using the EPA method 8270. A third sample was collected by a personal sampler and assayed by GC/MS using EPA method 8270.

The sample subjected to SFC/MS analysis was assayed for the same list of semi-volatile target analytes used in the previous AMCCOM studies. These target analytes are presented in Table 5. SFC/MS analysis was chosen because this had shown advantages over the more conventional GC/MS in detecting less stable species such as the nitrosamines and nitro compounds. The second sample (Hi Vol sampler, GC/MS analysis) was analyzed for a substantial list of about 120 semivolatile organic compounds. This list of target analytes is presented in Table 6. Finally the third sample (PS sampler, GC/MS analysis) was analyzed for a list of about 78 gases and volatile organic compounds. These target analytes are shown in Table 7. The lists were not mutually exclusive, that is some target analytes were included on both the list subjected to SFC/MS analysis and GC/MS analysis. In addition, since semivolatile organic compounds can be detected in the third sample, target analytes from the first two lists were reported for the third sample. This extension of the designed protocol provided data in instances where the higher tiered data were faulty. In addition criteria pollutants, other gases (including HCN and SF_6) were targeted for analysis in each test.

Munitions studied included (1) 20 mm High-Explosive Incendiary (HEI) Cartridge, (2) 40 mm High Explosive (HE) Cartridges, (3) M18A1 Claymore Antipersonnel Mines, and (4) T45E7 Adapter-Boosters, as well as the TNT.

Three 20 mm HEI Cartridges in each test consisted of 10.69 grams of explosive (61 percent RDX, 35 percent aluminum powder and 4 percent wax) with 39.20 grams of WC 870 Propellant (72 to 82 percent nitrocellulose, 8 to 11 percent nitroglycerine with smaller amounts of graphite, potassium nitrate, sodium sulfate, calcium sulfate, diphenylamine, dibutylphthalate, stannic dioxide and volatiles) and 1.29 grams of I-136 incendiary. C4 Explosive Donor Charge (consisting of 91 percent RDX with polyisobutylene and mineral oil) was used in each test in 60 gram amounts. (Volume 1, p 3-7 of the January 1994 Report of USAFACC studies).

Two 40 mm HE Cartridges consisted of 54.5 grams of Composition A-5 Explosive (98 percent RDX with 2 percent stearic acid), 4.64 grams of M2 Propellant (75.55 percent nitrocellulose, 19.95 percent nitroglycerine, with minor amounts of barium nitrate, potassium nitrate, dinitrotoluene, diphenylamine and graphite). The C4 Explosive Donor Charge, 40 grams was also used in each test. (Volume 1, p 3-10 of the January 1994 Report of USAFACC studies).

The nominal composition of the M18A1 Antipersonnel Mine consisted of 227 grams of the C4 Explosive (91 percent RDX, 2 percent Polyisobutylene, and 1 percent Mineral Oil). (Volume 1, p 3-13 of the January 1994 Report of USAFACC studies).

The T45E7 Adapter Booster tested consisted of 177 grams of Tetryl with 10 grams of the C4 Explosive. (Volume 1, p 3-13 of the January 1994 Report of USAFACC studies).

The TNT tests were conducted with 227 grams (0.5 lb) blocks. Three cubical detonation blocks were removed from their cardboard casing and tied together and suspended by monofilament nylon line.

TABLE 5

SEMIVOLATILE ORGANIC COMPOUNDS TARGETED FOR ANALYSIS BY SFC/MS DURING USAFACC TEST

Semivolatile Organic Compounds
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2,4,6-Trinitrotoluene
2-Nitronaphthalene
N-Nitrosodiphenylamine
1,3,5-Trinitrobenzene
2-Nitrodiphenylamine
1-Nitropyrene
Naphthalene
Benz[a]anthracene
Benzo[a]pyrene
Pyrene
Phenol
Dibenzofuran
Diphenylamine
RDX Cyclonitee
HMX Octogen
Tetryl

TABLE 6

SEMIVOLATILE ORGANIC COMPOUNDS FOR ANALYSIS DURING USAFACC TESTING BY GCMS U.S. EPA METHOD 8270

1,2,4,5-Tetrachlorobenzene	4-Chloroaniline	Fluorene
1,2,4-Trichlorobenzene	4-Chlorophenyl phenyl ether	Hexachlorobenzene
1,2-Dichlorobenzene	4-Chloro-3-methylphenol	Hexachlorobutadiene
1,2-Diphenylhydrazine	4-Nitroaniline	Hexachlorocyclopentadiene
1,3,5-Trinitrobenzene	4-Nitrophenol	Hexachloroethane
1,3-Dichlorobenzene	4-Nitroquinoline-1-oxide	Hexachloropropene
1,3-Dinitrobenzene	5-Nitro-o-toluidine	Indeno(1,2,3-cd)pyrene
1,4-Dichlorobenzene	7,12-Dimethylbenz(a)anthracene	Isodrin
1,4-Naphthoquinone	Acenaphthene	Isophorone
1,4-Pheeylenediamine	Acenaphthylene	Isosafrole
1-Naphthylamine	Acetophenone	Methapyrilene
2,3,4,5- or 2,3,4,6-TCPhenol	Aniline	Methyl methanesulfonate
2,3,5,6-Tetrachlorophenol	Anthracene	Naphthalene
2,4,5-Trichlorophenol	Benzo(a)anthracene	Nitrobenzene
2,4,6-Trichlorophenol	Benzo(a)pyrene	N,N-Dimethyl-l-phenethylamine
2,4-Dichlorophenol	Benzo(b)fluoranthene	N-Nitrosodiethylamine
2,4-Dimethylphenol	Benzo(ghi)perylene	N-Nitrosodimethylamine
2,4-Dinitrophenol	Benzo(k)fluoranthene	N-Nitrosodiphenylamine
2,4-Dinitrotoluene	Benzoic Acid	N-Nitrosodi-n-butylamine
2,6-Dichloruphenol	Benzyl alcohol	N-Nitrosodi-n-propylamine
2,6-Dinitrotoluene	bis(2-Chloroethoxy)methane	N-Nitrosomethylethylamine
2-Acetylaminofluorene	bis(2-Chloroethyl)ether	N-Nitrosomorpholine
2-Chloronaphthalene	bis(2-Chloroisopropyl)ether	N-Nitrosopiperidine
2-Chlorophenol	bis(2-Ethylhexyl)phthalate	N-Nitrosopyrrolidine
2-Methylnaphthalene	Butyl benzyl phthalate	O,O,O-triethylphosphorothioate
2-Methylphenol	Carbazole	o-Toluidine
2-Naphthylamine	Chlorobenzilate	Pentachlorobenzene
2-Nitroaniline	Chrysene	Pentachloroethane
2-Nitrophenol	Diallate(cis)	Pentachloronitrobenzene

TABLE 6
SEMIVOLATILE ORGANIC COMPOUNDS FOR ANALYSIS DURING USAFACC TESTING BY GCMS U.S. EPA METHOD 8270
PAGE 2

2-Picoline	Diallate(trans)	Pentachlorophenol
3,3'-Dichlorobenzidine	Dibenz(a,h)anthracene	Phenacetin
3,3'-Dimethylbenzidine	Dibenzofuran	Phenanthrene
4-Methylphenol	Diethyl phthalate	Phenol
3-Chloropropionitrile	Dimethoate	Pronamide
3-Methylcholanthrene	Dimethyl phthalate	Pyrene
3-Nitroaniline	Diphenylamine	Pyridine
4,4'-Methylene-bis-2-chloraniline	Di-n-butyl phthalate	p-(dimethylamine)azobenzene
4,6-Dinitro-2-methylphenol	Di-n-octyl phthalate	Safrole
4-Aminobiphenyl	Ethyl methanesulfonate	Tetraethyl dithiopyrophosphate
4-Bromophenyl phenyl ether	Fluoranthene	Thionazin

TABLE 7

CATEGORIES OF VOLATILE ORGANIC COMPOUNDS ANALYZED BY SFS/MS DURING USAFACC TESTING

	Paraffins	Olefins	Non-Benzene Aromatics
Carbon dioxide	n-Heptane	Ethylene	Toluene
Carbon monoxide	2,4-Dimethylhexane	2-Methyl-1-pentene	1,3,5-Trimethylbenzene
Methane	2-Methylheptane	Propene	n-Propylbenzene
	2-Methylpentane	1-Butene	Styrene
	3-Methylpentane	trans-2-Hexene	i-Propylbenzene
	Ethylchlorohexane	3-Methyl-1-butene	Ethylbenzene
	n-Hexane	Isoprene	o-Xylene
	i-Butane	1,3-Butadiene	m-Xylene + p-Xylene
	Methylcyclopentane	trans-2-Pentene	1,2,4-Trimethylbenzene & sec-Butylbenzene
	n-Butane	cis-2-Butene	Acetylene
	2,4-Dimethylpentane	cis-2-Hexene	Benzene
	2,2-Dimethylpropane	1-Pentene	p-Ethyltoluene
	Cyclohexane	2-Methyl-2-butene	m-Ethyltoluene
	n-Pentane	1-Hexene	o-Ethyltoluene
	2,3-Dimethylpentane	4-Methyl-1-pentene	
	Cyclopentane	trans-2-butene	
	3-Methylhexane	2-Methyl-2-pentene	
	n-Octane	2-Methyl-1-butene	
	Ethane	2-Pentene	
	2,3-Dimethylhexane	Cyclopentene	
	n-Octane	cis-2-Pentene	
	Ethane	cis-4-Methyl-2-pentene	
	2,3-Dimethylhexane	2,4,4-Trimethyl-1-pentene	
	Methylcyclohexane	2,2,4-Trimethyl-2-pentene	
	2,3,4-Trimethylpentane		
	n-Nonane		
	2,3-Dimethylbutane		
	Propane		

TABLE 7
CATEGORIES OF VOLATILE ORGANIC COMPOUNDS ANALYZED
BY SFS/MS DURING USAFACC TESTING
PAGE 2

	Paraffins	Olefins	Non-Benzene Aromatics
	2,2-Dimethylbutane		
	3-Ethylhexane		
	2,2,3,3-Tetramethylbutane		
	2-Methylhexane		
	2,5-Dimethylhexane		
	2,2-Dimethylheptane		
	2,2,4-Trimethylhexane		
	n-Decane		

PM-10 Results

Compared with results from earlier bang box tests conducted at SNL, the measurements of PM-10 (all particulate matter collected has been assumed to be PM-10) were higher. Even the results from the TNT detonations are higher than the TNT results at SNL by a factor of four, the cause of which is not known at this time. The size of the explosive was essentially the same. A standard blasting cap was used at the Dugway tests whereas SNL used PEEN and RDX detonators. The higher PM-10 results for each of the other explosives tested at Dugway appears related to the amount of casing material involved. No weights are given for these in the reports. Analysis of the toxic metals was conducted during each Air Force test. These appear somewhat constant among the four explosives tested. In each test, however, non-toxic metals such as iron, were either not tested or not reported.

1.4.2 Tentatively Identified Compounds (TICs)

Volume 2-A of the Air Force Bang Box study addresses the many peaks observed during the GC/MS analyses that were not target analytes and not definitely identified. Standard procedure in most laboratories (when the effort is authorized) is to automatically compare the observed mass spectra to a reference library of mass spectral data in an effort to identify the unknown compounds. This comparison is then presented as a list of "tentatively identified compounds" or TICs. Volume 2-A contains several disclaimers for this list of TICs including: "Table II, Appendix D lists retention times and very tentative identifications of compounds detected in the sample extracts that were not Appendix IX target analytes." and also "It should be understood that this data is not very reliable."

Although the TIC data is not useful for establishing EF for any tentatively identified compound, the data can be used in the aggregate to evaluate whether the representativeness of the compounds considered were carried into the risk assessment. For example, it has been determined based on waste constituents and emission data, that halogenated compounds are not of concern. If halogenated compounds had been present it would be probable that there would be several TICs that were halogenated compounds.

Volume 2-A Appendix D, Table 1 categorizes the TICs into families (and groups of families) of organic compounds. The three family groups tabulated are (1) Aliphatics and Derivatives, (2) Benzene Derivatives, and (3) PAHs and Derivatives.

Given the "not very reliable" qualifier already explained, evaluation of this TIC data when considered in the aggregate, tends to confirm that the chemicals of concern in the risk assessment adequately represent the total risk posed by OB, OD, SF, and DF emissions.

1.5 OB/OD Emission Tests Data Summary

1.5.1 Data Summary Techniques

All positive results from the AMCCOM and USAFACC studies (that is all reported results above the detection limit) have been used to assemble this data summary. In some cases it was necessary to use the reported laboratory data where this data was not presented in the body of the various reports. Generally in calculation of test results for the average of a series of tests the AMCCOM study geometric means were used to present averages. This required that any results at or below the detection limit, which were treated as zero, were not included. In the U.S. AFACC study, averages of a series of tests were arithmetic averages. For data summary presented in this HRA, average emission factors were calculated using arithmetic means. Where the result was presented in the AMCCOM report as NA

(usually indicating that an insufficient number of individual test results were obtained so that no meaningful average could be presented or that the parameter was not a target analyte for the particular test) the test was not used in the calculation of the average.

In the AAMCOM reports, a value of 1E-8 was indicated in several tables (e.g. Table 4.3.2; 4.3.7; 4.3.15; Volume 1, Field Test Series) to be a satisfactory detection limit for "most target analytes." Therefore, this was used for a detection limit when needed for semivolatile organics. In the USAFACC reports, no estimate of detection limit was presented. Therefore, where a value was not presented it was assumed that the parameter was found but at a very low level. In these cases it was assumed that the smallest value reported in other tests could be used to approximate the detection limit where needed. In practice the value of 1E-8 for the AAMCOM detection limit or the lowest value reported in other tests for the USAFACC detection limit appears to make little difference in calculation of the averages and the 95 perent upper confidence limit. Invariably the values reported are substantially higher than these estimates.

Where results had been obtained both from AMCCOM and USAFACC testing, an overall average was obtained by giving equal weight to each test. In checking these averages, it must be remembered that a greater number of significant figures were used than presented in the tables.

1.5.2 Open Burning Emission Factor Results

Open burning (OB) emission factors (EF) developed from the AMCCOM testing (bang box and field studies) are shown on the master list in Appendix 2-7. These are also shown in Table 2. The table contains results of the semivolatiles obtained by SFC/MS analysis. This information is obtained from Table 5 in Volume 1 of the Field Test Series report (Appendix 2-12). EFs for analytes found below the detection limit are assumed to be equal to 1.0E-8 lb/lb.

Table 2 also shows EF for four criteria pollutant gases (CO, NO, NO_2, and PM-10) and three volatile target analytes (methane, benzene, and TNMHCs) from seven different tests of propellant burns.

1.5.3 Open Detonation Emission Factor Results

Open Detonation (OD) emission factors (EF) developed in the AMCCOM and/or USAFACC studies are shown in Table 3. Table 3 shows the results for the 16 prime semivolatile organic target analytes. Arithmetic averages were used in each set of tests. In the AMCCOM tests, results below the detection limit were stated in AMCCOM tables as "BD". In these cases the value was incorporated into the average as 1.0E-8 lbs/lb. Where the result was indicated as NA, (i.e. not applicable) the result was not incorporated into the average. In the USAFACC tests it was not certain that a missing result indicated a result below detection or that the analyte was not a target analyte in that test. In calculations of the U.S. AFACC average, a missing result was incorporated into the average as the lowest value reported for that analyte in other tests.

Table 3 shows results for the positive values obtained in either the AMCCOM or USAFACC testing. This table shows all compounds listed in Table 3.10 of Volume 1 of the USAFACC report. The report indicates that these compounds were all tested for by the G/MS analyses from the Hi Vol sampler and the PS sampler. USAFACC results are from the Hi Vol sampling unless indicated.

Table 3 also shows EFs for the energetics that were tested for during the two studies. Both studies contain substantial data on TNT. Both studies used RDX as a target analyte. The USAFACC study u RDX as a target analyte in all tests, whereas the AMCCOM testing analyzed for RDX only in those ca.

where the explosive contained RDX. HMX was a target analyte in the USAFACC studies, and Picric Acid was a target analyte in one series of tests during the AMCCOM tests.

Table 3 also shows EFs for the criteria pollutants and volatile organics (including hydrogen cyanide). Not all data is available from each study. For example the criteria pollutant gases, although analyzed in the USAFACC study were not reported. PM-10 was not analyzed for in the AMCCOM field tests. Similarly data on butadiene, paraffins, olefins, aromatics and TO-12 was not available from the AMCCOM reports. Nevertheless, when all the data are used a good estimate of each EF is available.

Tables 2 and 3 summarize all OB and OD results for parameters that had data available. In these tables each test result is shown along with the average of all tests (using 1E-8 as an estimate of the detection limit for AMCCOM tests and the lowest reported number for USAFACC tests). In addition the standard deviation and 95% upper confidence limit are tabulated along with the maximum test result. In these tables the standard deviation and upper confidence limit are calculated according to U.S. EPA publication 9285.7-081, Supplemental Guidance to RAGS: Calculating the Concentration Term. This procedure assumes a normal distribution and the equation for the upper confidence limit (UCL) is:

$$UCL = x + t(s/n^{0.5}) \text{ where}$$

x = mean of the untransformed data
s = standard deviation of the untransformed data
t = Student-t statistic (from Appendix IV, 40CFR264)
n = number of samples

Bang Box
Open Detonation Emission Factors

Contaminant	BLOCK TNT	20mm HEI	40mm HE	MINE M18A1	ADAPTER BOOSTER	TNT BANG BOX	TNT SURFACE DET PHASE A	TNT SURFACE DET PHASE B	TNT SURFACE DET PHASE C	PHASE C SURF DET COMP B	PHASE C SURF DET EXP D	PHASE C SURF DET RDX	TEST AVERAGE	STANDARD DEVIATION	Upper 95% Conf. Limit (lb/lb)	Max Value (lb/lb)	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene						1.0E-08	1.0E-08	3.9E-08	1.0E-08	5.6E-08	1.1E-08	5.0E-08	2.7E-08	1.9E-08	4.1E-08	5.6E-08	4.08E-08	2.657E-08
1,3-Butadiene	1.8E-06	3.7E-06	1.6E-06	2.8E-06	2.3E-05								6.6E-06	8.3E-06	1.4E-05	2.3E-05	1.44E-05	6.562E-06
1,3,5-Trinitrobenzene	1.5E-06	3.7E-07	7.3E-08	4.5E-08	4.2E-09	4.5E-08	1.0E-08	1.0E-08	1.0E-08	5.9E-08	1.8E-08	4.4E-08	1.8E-07	4.1E-07	3.9E-07	1.5E-06	3.94E-07	1.824E-07
1,4-Dichlorobenzene	2.5E-07	2.5E-07	2.5E-07	2.5E-07	3.0E-07								2.6E-07	2.0E-08	2.8E-07	3.0E-07	2.79E-07	2.600E-07
2-Methyl naphthalene	1.4E-07	1.6E-07	1.4E-07	1.5E-06	3.6E-07	3.5E-06	1.0E-08						8.3E-07	1.2E-06	1.7E-06	3.5E-06	1.70E-06	8.300E-07
2-Methylphenol	5.2E-07	5.2E-07	5.2E-07	5.2E-07	1.0E-06								6.2E-07	1.9E-07	8.0E-07	1.0E-06	7.99E-07	6.160E-07
2-Nitronaphthalene	1.2E-09	2.7E-09	1.2E-09	1.2E-09	1.2E-09	1.6E-07	8.0E-08	2.7E-07	1.0E-08	8.6E-08	4.3E-08	4.9E-08	5.9E-08	7.9E-08	1.0E-07	2.7E-07	9.98E-08	5.879E-08
4-Nitrophenol						3.4E-07	1.0E-08						1.8E-07	1.7E-07	9.1E-07	3.4E-07	9.12E-07	1.750E-07
Acenaphthylene	1.3E-07	1.3E-07	1.3E-07	3.0E-07	5.9E-07								2.6E-07	1.8E-07	4.3E-07	5.9E-07	4.27E-07	2.560E-07
Acetophenone	1.5E-07	1.4E-07	1.4E-07	2.0E-07	1.4E-07								1.5E-07	2.3E-08	1.8E-07	2.0E-07	1.76E-07	1.540E-07
alpha,alpha-Dimethylphenethylamine					9.9E-07								9.9E-07			9.9E-07	9.90E-07	9.900E-07
Ammonia						2.9E-04							2.9E-04			2.9E-04	2.92E-04	2.920E-04
Anthracene	1.3E-07	1.3E-07	1.3E-07	2.6E-07	1.3E-07								1.6E-07	5.2E-08	2.1E-07	2.6E-07	2.06E-07	1.560E-07
Aromatics (VOs, including benzene)	1.6E-05	1.5E-04	1.6E-05	3.1E-03	3.6E-04								7.2E-04	1.2E-03	1.8E-03	3.1E-03	1.84E-03	7.205E-04
Benzene	4.2E-06	8.3E-05	4.2E-06	8.2E-04	1.2E-04	2.4E-06	9.4E-05	9.3E-05	1.0E-04	6.2E-05	1.1E-04	6.9E-05	1.3E-04	2.1E-04	2.4E-04	8.2E-04	2.39E-04	1.301E-04
Benzo[a]pyrene	1.3E-08	1.3E-08	1.3E-08	1.2E-07	1.3E-08	3.6E-07	1.0E-08	2.4E-07	1.0E-08	1.4E-08	3.8E-08	1.4E-07	8.2E-08	1.1E-07	1.4E-07	3.6E-07	1.39E-07	8.200E-08
Benzo[b]fluoranthene				6.0E-07									1.2E-07	2.4E-07	3.5E-07	6.0E-07	3.49E-07	1.200E-07
Benzyl alcohol	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.2E-07							9.6E-08	3.9E-08	1.2E-07	1.2E-07	1.25E-07	9.571E-08
Benzo[k]fluoranthene				4.8E-07									9.6E-08	1.9E-07	2.8E-07	4.8E-07	2.79E-07	9.600E-08
Benz[a]anthracene	4.3E-09	4.3E-09	6.6E-09	1.3E-07	2.9E-08	1.0E-08	2.2E-09	1.6E-07	1.0E-07	7.4E-09	1.9E-08	9.3E-08	4.7E-08	5.5E-08	7.6E-08	1.6E-07	7.55E-08	4.715E-08
Butyl benzyl phthalate	2.1E-07	1.6E-07	6.2E-07	4.8E-07	1.1E-06								5.1E-07	3.4E-07	8.4E-07	1.1E-06	8.37E-07	5.140E-07
Carbon monoxide						4.9E-03	6.1E-02	4.2E-02	4.9E-02	3.1E-02	5.3E-02	3.1E-02	3.9E-02	1.7E-02	5.2E-02	6.1E-02	5.15E-02	3.884E-02
Chrysene				2.3E-07									2.3E-07			2.3E-07	2.30E-07	2.300E-07
Dibenzofurans	1.5E-08	9.2E-08	3.1E-08	9.6E-08	1.6E-07	1.5E-07	1.0E-08	8.5E-08	1.8E-07	1.0E-08	1.1E-07	2.0E-06	2.4E-07	5.3E-07	5.2E-07	2.0E-06	5.21E-07	2.449E-07
Dibenz[a,h]anthracene						4.3E-07							4.3E-07			4.3E-07	4.30E-07	4.300E-07
Dimethyl phthalate	8.8E-08	2.5E-07	4.1E-07	1.8E-07	2.7E-07								2.4E-07	1.1E-07	3.4E-07	4.1E-07	3.41E-07	2.396E-07
Di-n-octyl phthalate	2.7E-07	9.5E-07	1.5E-06	5.1E-06	5.0E-07								1.7E-06	1.8E-06	3.4E-06	5.1E-06	3.35E-06	1.664E-06
Di(2-ethylhexyl)phthalate	1.0E-06	1.1E-06	2.9E-06	2.2E-06	2.4E-06								1.9E-06	7.5E-07	2.6E-06	2.9E-06	2.63E-06	1.920E-06
Ethyl benzene	4.8E-07	3.4E-06	4.8E-07	3.8E-05	9.0E-06								1.0E-05	1.4E-05	2.4E-05	3.8E-05	2.38E-05	1.027E-05
Fluoranthene	2.2E-07	2.2E-07	2.2E-07	1.1E-06	3.3E-07								4.2E-07	3.4E-07	7.5E-07	1.1E-06	7.48E-07	4.180E-07
Fluorene	2.2E-07	2.2E-07	2.2E-07	2.2E-07	3.5E-07								2.5E-07	5.2E-08	3.0E-07	3.5E-07	2.96E-07	2.460E-07
Hexane	9.6E-07	2.5E-06	9.6E-07	3.0E-05	5.8E-06								8.0E-06	1.1E-05	1.9E-05	3.0E-05	1.86E-05	8.044E-06
Hydrogen cyanide	9.7E-04	4.5E-03	3.4E-03	2.3E-03	2.4E-03	4.0E-05							2.3E-03	1.5E-03	3.5E-03	4.5E-03	3.48E-03	2.268E-03
Methane	5.5E-04	2.8E-03	5.1E-05	5.8E-03	7.0E-03	2.5E-05	1.5E-03	1.2E-03	1.5E-03	6.0E-04	2.4E-03	2.0E-04	2.0E-03	2.2E-03	3.1E-03	7.0E-03	3.09E-03	1.969E-03
Naphthalene	1.3E-07	1.4E-07	8.1E-08	7.6E-08	1.7E-07	2.8E-05	1.0E-08	3.7E-06	2.6E-06	4.2E-07	6.3E-07	2.0E-07	3.0E-06	7.6E-06	7.0E-06	2.8E-05	6.96E-06	3.013E-06
Nitric oxide						1.1E-02	7.0E-04	1.4E-03	1.4E-03	6.0E-04	9.0E-04	9.0E-04	2.4E-03	3.5E-03	5.0E-03	1.1E-02	5.02E-03	2.443E-03
Nitrogen dioxide						5.6E-04	3.6E-03	1.1E-03	1.4E-03	1.0E-03	1.1E-03	6.0E-04	1.3E-03	9.6E-04	2.0E-03	3.6E-03	2.04E-03	1.337E-03
N-Nitrosodiethylamine	1.2E-07	1.2E-07	1.2E-07	1.2E-07	1.2E-07								1.2E-07			1.2E-07	1.20E-07	1.200E-07
N-Nitrosodiphenylamine	2.8E-08	4.5E-06	5.7E-08	2.8E-08	4.0E-08	2.0E-07	1.0E-08	4.4E-09	1.0E-08	3.6E-08	5.8E-08	1.0E-08	4.2E-07	1.2E-06	1.1E-06	4.5E-06	1.05E-06	4.151E-07
Olefins (VOs)	6.2E-05	4.2E-04	1.3E-04	1.3E-03	1.4E-03								6.6E-04	5.8E-04	1.2E-03	1.4E-03	1.21E-03	6.625E-04
Parafins (VOs)	7.2E-05	1.2E-04	7.2E-05	7.2E-05	8.7E-05								8.5E-05	1.9E-05	1.0E-04	1.2E-04	1.03E-04	8.492E-05
Particulates (PM-10)	7.3E-02	2.4E-01	6.3E-01	2.3E-01	2.6E-01	1.7E-02							2.4E-01	1.9E-01	4.0E-01	6.3E-01	4.00E-01	2.400E-01
Phenanthrene	3.3E-08	2.7E-07	2.4E-07	2.1E-06	1.1E-06	2.0E-08	1.0E-08						5.4E-07	7.3E-07	1.1E-06	2.1E-06	1.07E-06	5.390E-07
Phenol	1.6E-07	1.7E-07	1.3E-07	7.1E-07	1.3E-07	9.9E-06	1.0E-08	5.2E-06	1.0E-08				1.8E-06	3.3E-06	3.8E-06	9.9E-06	3.85E-06	1.824E-06
Picric acid											5.0E-08		5.0E-08			5.0E-08	5.00E-08	5.000E-08
Pyrene	9.0E-08	4.3E-07	9.0E-08	2.0E-06	4.6E-07	3.2E-08	1.0E-08	NA	2.2E-07	2.1E-07	1.8E-07	2.2E-07	3.3E-07	5.2E-07	6.0E-07	2.0E-06	6.00E-07	3.265E-07
Styrene	1.1E-04	1.1E-04	1.1E-04	1.7E-03	1.1E-04								4.3E-04	6.4E-04	1.0E-03	1.7E-03	1.03E-03	4.280E-04
Sulfur dioxide						2.2E-04							2.2E-04			2.2E-04	2.23E-04	2.230E-04
TNMHC	9.9E-04	9.9E-04	2.7E-04	4.9E-03	1.9E-03	5.7E-05	1.4E-03	1.9E-03	2.1E-03	1.2E-03	2.0E-03	1.3E-03	1.6E-03	1.2E-03	2.2E-03	4.9E-03	2.20E-03	1.584E-03
TO-12 (TOT.ORGANICS,C2-C15)	3.0E-04	1.7E-03	4.3E-04	7.5E-03	2.3E-03								2.5E-03	2.6E-03	5.0E-03	7.5E-03	4.98E-03	2.460E-03
Toluene	5.3E-06	2.2E-05	5.3E-06	2.5E-04	5.1E-05								6.7E-05	9.3E-05	1.6E-04	2.5E-04	1.56E-04	6.672E-05
Xylenes (isomers and mixture)	3.1E-06	1.7E-05	3.1E-06	2.2E-04	2.8E-05								5.4E-05	8.3E-05	1.3E-04	2.2E-04	1.34E-04	5.425E-05

Bang Box
Open Burning Emission Factors

Contaminant	BANGBOX DOUBLE BASE	BANGBOX COMPOSITE	PHASE A TRIPLE BASE	MFGR. RESIDUE PHASE B	MFGR. RESIDUE PHASE C	PHASE C M-1	PHASE C M-6	AMCCOM AVERAGE (OB EF)	STANDARD DEVIATION	Upper 95 % Conf. Limit (lb/lb)	Max Value (lb/lb)	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	1.0E-08	2.0E-08	1.0E-08	NA	1.0E-08	1.0E-08	1.0E-08	1.0E-08	5.3E-09	1.4E-08	2.0E-08	1.39E-08	1.0E-08
1,3,5-Trinitrobenzene	NA	NA	1.0E-08	NA	5.3E-09	1.0E-08	1.0E-08	5.0E-09	4.6E-09	8.4E-09	1.0E-08	8.44E-09	5.0E-09
1,6-Dinitropyrene	1.0E-08	1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
2-Naphthylamine	1.0E-08	1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
2-Nitronaphthalene	5.4E-08	1.3E-08	1.0E-08	3.7E-09	8.3E-08	1.0E-08	1.0E-08	2.6E-08	2.8E-08	4.7E-08	8.3E-08	4.68E-08	2.6E-08
2-Nitrophenol	6.9E-07	4.1E-07	1.0E-08	1.0E-08	NA	NA	NA	1.6E-07	2.6E-07	3.5E-07	6.9E-07	3.49E-07	1.6E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)		1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide		1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
Ammonia	2.0E-05	2.0E-05						2.0E-05			2.0E-05	2.00E-05	2.0E-05
Benzene	1.1E-05	5.7E-06	1.0E-08	1.0E-08	1.6E-05	4.8E-06	1.7E-06	5.6E-06	5.6E-06	9.7E-06	1.6E-05	9.68E-06	5.6E-06
Benzo[a]pyrene	9.0E-07	1.0E-08	1.0E-08	2.3E-08	8.1E-08	1.0E-08	1.0E-08	1.5E-07	3.1E-07	3.7E-07	9.0E-07	3.75E-07	1.5E-07
Benz[c]acridine	1.0E-08	1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
Benz[a]anthracene	1.0E-08	1.0E-08	1.0E-08	3.8E-08	1.4E-07	1.0E-08	1.0E-08	3.3E-08	4.5E-08	6.6E-08	1.4E-07	6.56E-08	3.3E-08
Carbon monoxide	9.1E-04	2.9E-04	2.5E-05	4.9E-04	7.0E-04	2.5E-04	9.5E-05	3.9E-04	3.0E-04	6.1E-04	9.1E-04	6.14E-04	3.9E-04
Dibenzofurans	2.6E-07	2.8E-07	1.0E-08	2.6E-07	1.2E-04	1.0E-08	1.0E-08	1.7E-05	4.2E-05	4.8E-05	1.2E-04	4.81E-05	1.7E-05
Dibenz[a,h]anthracene	1.0E-08	1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
Diethylenetriamine		1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
Di-n-propyladipate	1.0E-08							1.0E-08			1.0E-08	1.00E-08	1.0E-08
Dioctylsebacate		1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
Hydrogen cyanide	2.0E-05	2.0E-05						2.0E-05			2.0E-05	2.00E-05	2.0E-05
Isophoronedi-isocyanate		1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
Methane	6.7E-05	2.0E-05	bd	bd		7.5E-04	8.0E-03	1.5E-03	2.9E-03	3.9E-03	8.0E-03	3.88E-03	1.5E-03
Naphthalene	1.0E-08	1.4E-06	1.0E-08	1.5E-06	5.4E-07	1.9E-08	7.5E-08	5.1E-07	6.2E-07	9.6E-07	1.5E-06	9.64E-07	5.1E-07
Nitric oxide	1.4E-04	3.0E-03	5.2E-03	2.8E-03	2.6E-03	1.2E-03	2.4E-03	2.5E-03	1.5E-03	3.5E-03	5.2E-03	3.55E-03	2.5E-03
Nitrogen dioxide	8.8E-04	6.1E-04	2.1E-03	5.1E-04	1.5E-04	4.7E-04	5.2E-04	7.5E-04	5.9E-04	1.2E-03	2.1E-03	1.18E-03	7.5E-04
N-Nitrosodiphenylamine	1.5E-06	3.5E-08	1.0E-08	1.9E-08	2.7E-08	1.0E-08	1.4E-10	2.3E-07	5.2E-07	6.1E-07	1.5E-06	6.10E-07	2.3E-07
Particulates (PM-10)		1.0E-04	6.9E-03	1.1E-02	2.0E-02	1.6E-02	1.0E-02	1.1E-02	6.4E-03	1.6E-02	2.0E-02	1.59E-02	1.1E-02
Phenyldiisodecylphosphite		1.0E-08						1.0E-08			1.0E-08	1.00E-08	1.0E-08
Phenol	4.4E-06	3.8E-06	1.0E-08	8.0E-06	NA	3.4E-09	1.5E-09	2.3E-06	2.9E-06	4.5E-06	8.0E-06	4.47E-06	2.3E-06
Pyrene	NA	NA	1.0E-08	7.1E-08	3.2E-07	1.0E-08	1.0E-08	6.0E-08	1.1E-07	1.4E-07	3.2E-07	1.40E-07	6.0E-08
Resorcinol	1.0E-08							1.0E-08			1.0E-08	1.00E-08	1.0E-08
Salicylic Acid	1.0E-08							1.0E-08			1.0E-08	1.00E-08	1.0E-08
Sulfur dioxide	3.6E-04	1.4E-04						2.5E-04	1.1E-04	7.3E-04	3.6E-04	7.34E-04	2.5E-04
TNMHC	1.6E-04	3.3E-04	1.5E-06	4.5E-05	5.6E-04	4.6E-04	1.3E-05	2.2E-04	2.1E-04	3.8E-04	5.6E-04	3.79E-04	2.2E-04
Triacetin	1.0E-08							1.0E-08			1.0E-08	1.00E-08	1.0E-08

APPENDIX C

WIND EROSION EMISSIONS

APPENDIX C-1

U.S.EPA TECHNICAL GUIDANCE FOR THE DEVELOPMENT OF WIND EROSION EMISSION RATES

United States
Environmental Protection
Agency

Office of Health and
Environmental Assessment
Washington DC 20460

EPA/600/8-85/002
February 1985

PB85-192219

Research and Development

EPA

Rapid Assessment of Exposure to Particulate Emissions from Surface Contamination Sites

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

exposure of fresh surface material. This would occur whenever aggregate material is either added to or removed from the old surface. A disturbance of an exposed area may also result from the turning of surface material to a depth exceeding the size of the largest pieces of material present.

Although vehicular traffic alters the surface by pulverizing surface material, several vehicle passes may be required to restore the full erosion potential, except for surfaces that crust before substantial wind erosion occurs. In that case, breaking of the crust over the area of the tire/surface contact once again exposes the erodible material beneath.

Thornthwaites' P-E (PE) Index is a useful indicator of average surface soil moisture conditions. In the present context, the P-E Index is applied as a correction parameter for wind generated emissions in the limited reservoir case. Figure 4-2 provides a basis for selecting an appropriate P-E value.

The worst-case emission rate is calculated by assuming that a disturbance occurs just prior to the annual fastest mile event, both within the 24-h period of interest. For this calculation, use Equation (4-1) with $f = 30\ mo^{-1}$.

4.1.2 Wind Erosion from Surfaces with Unlimited Erosion Potential

For estimating respirable particulate emissions from wind erosion of surfaces with an "unlimited reservoir" of erodible particles, a predictive emission factor equation developed from Gillette's (1981) field measurements of highly erodible soils is recommended. In relating the annual average rate of respirable particulate emissions (per unit area) to field and climatic factors, the equation takes the following form:

$$E_{10} = 0.036\ (1-V) \left(\frac{[u]}{u_t}\right)^3 F(x) \qquad (4\text{-}4)$$

where:

E_{10} = PM_{10} emission factor, i.e., annual average PM_{10} emission rate per unit area of contaminated surface (g/m^2-hr)

V = fraction of contaminated surface vegetative cover (equals 0 for bare soil)

$[u]$ = mean annual wind speed (m/s), taken from Table 4-1

$x = 0.886\ u_t/[u]$ = dimensionless ratio

$F(x)$ = function plotted in Figure 4-3

u_t = threshold value of wind speed at 7 m (m/s)

This follows from the empirical relationship that the vertical flux of particles smaller than 10 μm diameter is proportional to the cube of wind speed. Because highly erodible soils do not readily retain moisture, no moisture-related parameter is included in the equation.

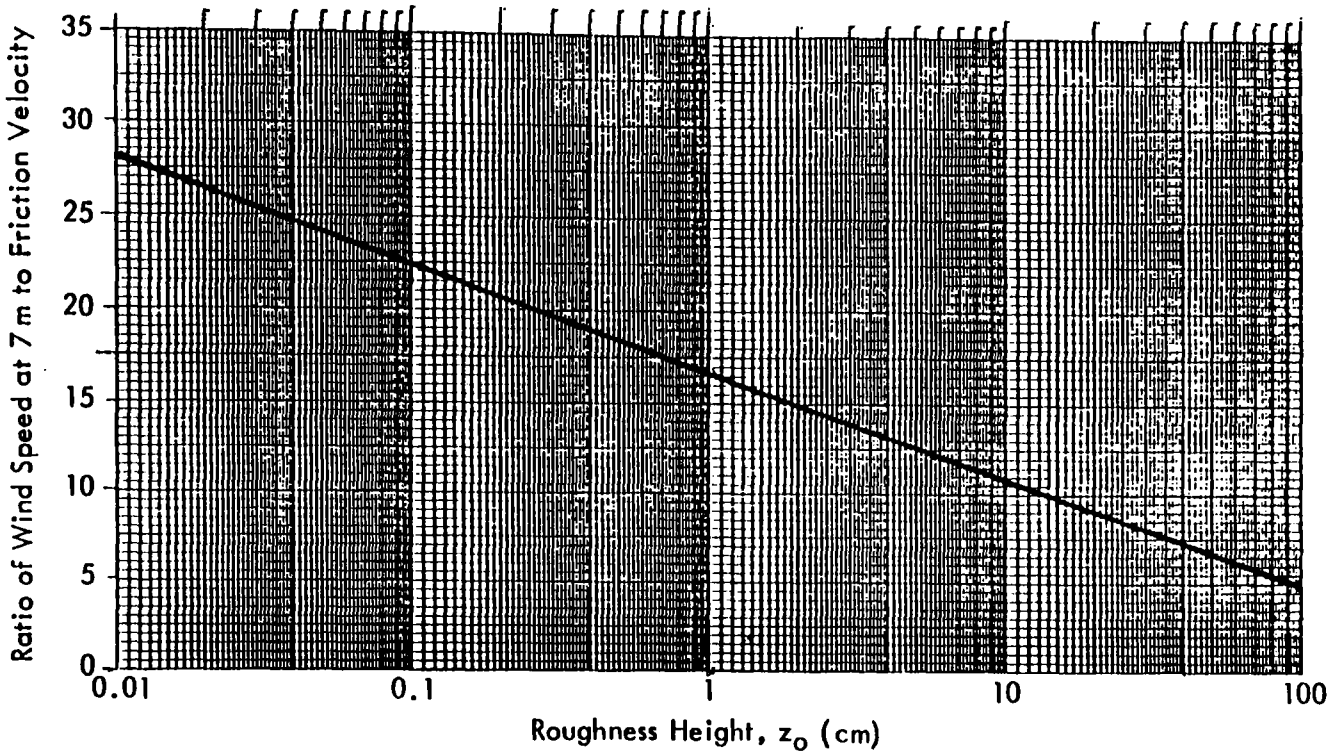

Figure 4-1. Ratio of wind speed at 7 m to friction velocity as a function of roughness height.

APPENDIX C-2

WIND EROSION EMISSION RATE CALCULATION SHEETS FOR PM10 AND PM23 MICRON PARTICLES

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT: NSWC - Crane	JOB NUMBER:
SUBJECT: Particulate emission rate - 10 micron	
BASED ON: DG wind erosion potential	DRAWING NUMBER:
BY: Wagner / CHECKED BY: [signature]	APPROVED BY: / DATE: 6/27/97

Calculate the emission rate of wind erodible material from the Demolition Ground (DG) based on a particle diameter of 10 μm (microns).

(1) $$E_{10} = 0.036\,(1-V)\left(\frac{u}{u_T}\right)^3 F(x)$$

where E_{10} = PM_{10} emission factor (g/m^2-hr)

V = Vegetative cover

u = Mean wind speed (m/s) from Table 4-1

(2) u_T = Threshold value of wind speed @ the 7 meter level. (m/s)

$F(x)$ = function plotted in Figure 4-3

where
$$x = 0.886\left(\frac{u_T}{u}\right)$$

(1) From USEPA publication, Rapid Assessment of Exposure to Particulate Emissions from Surface Contamination Sites".

(2) Also known as $u_T = u(7m) = \frac{u_*}{0.4} \ln\left(\frac{z}{z_0}\right)$

This equation converts the wind speed at the surface to a typical anemometer height of 7 meters.

CLIENT	JOB NUMBER		
NSWC - Crane			
SUBJECT: Particulate emission rate			
BASED ON		DRAWING NUMBER	
BY: Wagner	CHECKED BY: [signature]	APPROVED BY	DATE: 6/27/97

Solve for u_T

From Figure 3-4[1], the Threshold Friction Velocity, assuming a particle diameter of 10 μm, is 10 cm/sec (0.10 m/s). Assume surface roughness height of 1.0cm based on the land classification of the Demo Ground, which is void of vegetation.

$$\therefore \quad u_T = \frac{0.10\ m/s}{0.4} \ln\left(\frac{7\ meters}{0.01\ m}\right)$$

$$= (.25\ m/s)(6.55)$$

$$= \underline{\underline{1.64\ m/s}}$$

Solve for X

where $X = 0.886 \left(\frac{u_T}{u}\right)$

$$= 0.886\left(\frac{1.64\ m/s}{4.3\ m/s}\right)$$

$$= 0.886\ (0.381)$$

$$= 0.338$$

Solve for F(x) when x = 0.338

From Figure 4-3[1]; F(x) = 1.91

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT: NSWC-Crane	JOB NUMBER:
SUBJECT: Particulate emission rate	
BASED ON:	DRAWING NUMBER:
BY: W. Cogner / CHECKED BY: [signature]	APPROVED BY: / DATE: 6/27/97

Solve for E_{10} where

$V = 0\%$

$u = 4.3\ m/s$

$u_T = 1.64\ m/s$

$F(x) = 1.91$

$$E_{10} = 0.036(1-0)\left(\frac{4.3\ m/s}{1.64\ m/s}\right)^3(1.91)$$

$$(2.62)^3$$

$$= (0.036)(18.0)(1.91)$$

$$= 1.24\ g/m^2\text{-}hr$$

$$= (1.24\ g/m^2\text{-}hr)\left(\frac{hr}{3600\ sec}\right)$$

$$= 0.0003\ g/m^2\text{-}s$$

CLIENT	JOB NUMBER		
Crane	5911.4T14		
SUBJECT: Demo Ground wind erosion emission rate - 23 MICRON			
BASED ON: Unlimited erosion potential	DRAWING NUMBER		
BY: Wagner	CHECKED BY:	APPROVED BY	DATE: 11/23/93

*From USEPA Publication 600/8-85/002, "Rapid Assessment of Exposure to Particulate Emission from Surface Contamination Sites", equation 4-4 gives relationship of estimating respirable particulate emissions from wind erosion of surfaces with an "unlimited reservoir" of erodible particulates.

$$E_{10} = 0.036(1-v)\left(\frac{u}{u_t}\right)^3 F(x)$$

E_{10} = PM_{10} emission factor (g/m^2-hr)

v = Vegetative cover

u = mean wind speed (m/s) from Table 4-1*

x = $0.886(u_t/u)$

$F(x)$ = function plotted in Figure 4-3*

u_t = threshold value of wind speed @ 7m (m/s)

u_t is also equal to $u(7m)$

where

$$u(7m) = \frac{u_*}{0.4} \ln\left(\frac{z}{z_0}\right)$$

this equation converts the wind speed at the surface to a wind speed at 7mete

CLIENT	JOB NUMBER
Crane	5911 4T14

SUBJECT: Demo Ground wind erosion emission rate

BASED ON: Unlimited erosion potential | DRAWING NUMBER:

BY	CHECKED BY	APPROVED BY	DATE
Wagner			11/23/93

where

$V = 0$

$u = 4.3$ m/s

first calculate u_t or $u(7m)$, assume particle diameter of 23 μm. This diameters comes from geotechnical data for soil samples taken from Crane. Out of 10 samples, majority of the surface soil diameters were between 6.3 and 39.8 μm. A diameter of 23 μm is the average diameter of 6.3 and 39.8 μm.

From Fig 3-4* Threshold Friction Velocity, assuming at particle diameter of 23 μm, is 14 cm/s hence $u_* = 14$ cm/s. Assume roughness height of 1.0 cm corresponding to the land classification of the Demo ground, which is void of vegetation. Height of 7 meters above surface (

$$u(7m) = \left(\frac{.14 \text{ m/s}}{0.4}\right) \ln\left(\frac{7 \text{ meters}}{0.01 \text{ m}}\right)$$

$$= (.35 \text{ m/s})\ (6.6)$$

$$= 2.31 \text{ m/s}$$

CLIENT	JOB NUMBER
Crane	5911 4T14

SUBJECT: Demo Ground wind erosion emission rate.

BASED ON	DRAWING NUMBER
Unlimited erosion potential	

BY	CHECKED BY	APPROVED BY	DATE
Wagner			11/23/93

Calculate x ?

$$x = 0.886\left(2.31\ m/s \,/\, 4.3\ m/s\right)$$

$$= 0.476$$

from Figure 4-3* when $x = 0.476$; $f(x) = 1.90$

Calculate E_{10}

$$E_{10} = 0.036(1-0)\left(\frac{4.3\ m/s}{2.31\ m/s}\right)^3 1.90$$

$$= 0.44\ g/m^2\text{-}hr \left(\frac{1\ hr}{3600\ s}\right)$$

$$= 0.00012\ g\,PM_{10}/m^2\text{-}s$$

APPENDIX C-3

THRESHOLD WIND SPEED REFERENCE

Air CHIEF

CD-ROM

Clearing House For Inventories And Emission Factors

EFIG/EMAD/OAQPS/EPA

Version 4.0

July 1995

EPA-454/C-95-001

Continue

13.2.5 Industrial Wind Erosion

13.2.5.1 General[1(1),2(2),3(3)]

Dust emissions may be generated by wind erosion of open aggregate storage piles and exposed areas within an industrial facility. These sources typically are characterized by nonhomogeneous surfaces impregnated with nonerodible elements (particles larger than approximately 1 centimeter [cm] in diameter). Field testing of coal piles and other exposed materials using a portable wind tunnel has shown that (a) threshold wind speeds exceed 5 meters per second (m/s) (11 miles per hour [mph]) at 15 cm above the surface or 10 m/s (22 mph) at 7 m above the surface, and (b) particulate emission rates tend to decay rapidly (half-life of a few minutes) during an erosion event. In other words, these aggregate material surfaces are characterized by finite availability of erodible material (mass/area) referred to as the erosion potential. Any natural crusting of the surface binds the erodible material, thereby reducing the erosion potential.

13.2.5.2 Emissions And Correction Parameters

If typical values for threshold wind speed at 15 cm are corrected to typical wind sensor height (7 - 10 m), the resulting values exceed the upper extremes of hourly mean wind speeds observed in most areas of the country. In other words, mean atmospheric wind speeds are not sufficient to sustain wind erosion from flat surfaces of the type tested. However, wind gusts may quickly deplete a substantial portion of the erosion potential. Because erosion potential has been found to increase rapidly with increasing wind speed, estimated emissions should be related to the gusts of highest magnitude.

The routinely measured meteorological variable that best reflects the magnitude of wind gusts is the fastest mile. This quantity represents the wind speed corresponding to the whole mile of wind movement that has passed by the 1 mile contact anemometer in the least amount of time. Daily measurements of the fastest mile are presented in the monthly Local Climatological Data (LCD) summaries. The duration of the fastest mile, typically about 2 minutes (for a fastest mile of 30 mph), matches well with the half-life of the erosion process, which ranges between 1 and 4 minutes. It should be noted, however, that peak winds can significantly exceed the daily fastest mile.

The wind speed profile in the surface boundary layer is found to follow a logarithmic distribution:

Endnotes

1 (Popup)

1.C. Cowherd, Jr., "A New Approach To Estimating Wind Generated Emissions From Coal Storage Piles", Presented at the APCA Specialty Conference on Fugitive Dust Issues in the Coal Use Cycle, Pittsburgh, PA, April 1983.

2 (Popup)

2.K. Axtell and C. Cowherd, Jr., *Improved Emission Factors For Fugitive Dust From Surface Coal Mining Sources*, EPA-600/7-84-048, U. S. Environmental Protection Agency, Cincinnati, OH, March 1984.

3 (Popup)

3.G. E Muleski, "Coal Yard Wind Erosion Measurement", Midwest Research Institute, Kansas City, MO, March 1985.

APPENDIX D

AIR DISPERSION MODELING ASSESSMENT SUPPORTING INFORMATION

APPENDIX D-1

DISPERSION MODEL RECEPTOR NETWORKS
GRID
BOUNDARY
DISCRETE

INPUFF

Receptor List: ABG

Receptor	Distance (m)	Elevation (m)
Radial	500	243.8
Radial	1000	253.0
Radial	1500	253.0
Radial	2000	253.0
Radial	2500	249.9
Radial	3000	246.9
Radial	3500	246.9
Radial	4000	259.1
Radial	4500	256.0
Radial	5000	262.1
Cafeteria	6168	231.6
N. Bald Eagle	7800	179.8
S. Bald Eagle	12960	155.4
DG Retreat	7200	207.3
ABG Retreat	120	182.9
Padanaram	3312	167.6
Indian Springs	5520	161.5
Silverville	7680	158.5
Burns City	11880	213.4
Boundary - N	10272	228.6
Boundary - NNE	8280	249.9
Boundary - NE	6648	222.5
Boundary - ENE	6960	216.4
Boundary - E	2016	198.1
Boundary - ESE	4272	182.9
Boundary - SE	6312	192.0
Boundary - SSE	9672	167.6
Boundary - S	12912	152.4
Boundary - SSW	15960	146.3
Boundary - SW	14784	152.4
Boundary - WSW	13752	192.0
Boundary - W	11256	198.1
Boundary - WNW	11496	167.6
Boundary - NW	13680	198.1
Boundary - NNW	12480	198.1
Boundary - 17th	1608	179.8

Receptor List: ORR

Receptor	Distance (m)	Elevation (m)
Radial	500	204.2
Radial	1000	225.6
Radial	1500	222.5
Radial	2000	231.6
Radial	2500	246.9
Radial	3000	249.9
Radial	3500	243.8
Radial	4000	249.9
Radial	4500	249.9
Radial	5000	257.6
Cafeteria	3792	231.6
N. Bald Eagle	5712	179.8
S. Bald Eagle	8688	155.4
DG Retreat	840	207.3
ABG Retreat	6552	182.9
Padanaram	9360	167.6
Indian Springs	6600	161.5
Silverville	14160	158.5
Burns City	5400	213.4
Boundary - N	9336	228.6
Boundary - NNE	10440	249.9
Boundary - NE	11160	222.5
Boundary - ENE	13296	216.4
Boundary - E	7056	198.1
Boundary - ESE	5160	182.9
Boundary - SE	5040	192.0
Boundary - SSE	7920	167.6
Boundary - S	9432	152.4
Boundary - SSW	10152	146.3
Boundary - SW	8736	152.4
Boundary - WSW	7344	192.0
Boundary - W	4848	198.1
Boundary - WNW	5496	167.6
Boundary - NW	8904	198.1
Boundary - NNW	9168	198.1
Boundary - 17th	8136	179.8

ISCST3

Receptor List: ABG

Receptor	Distance (m)	Elevation (m)
Radial	500	243.8
Radial	1000	253.0
Radial	1500	253.0
Radial	2000	253.0
Radial	2500	249.9
Radial	3000	246.9
Radial	3500	246.9
Radial	4000	259.1
Radial	4500	256.0
Radial	5000	262.1
Cafeteria	6168	231.6
N. Bald Eagle	7800	179.8
S. Bald Eagle	12960	155.4
DG Retreat	7200	207.3
ABG Retreat	120	182.9
Padanaram	3312	167.6
Indian Springs	5520	161.5
Silverville	7680	158.5
Burns City	11880	213.4
Boundary - N	10272	228.6
Boundary - NNE	8280	249.9
Boundary - NE	6648	222.5
Boundary - ENE	6960	216.4
Boundary - E	2016	198.1
Boundary - ESE	4272	182.9
Boundary - SE	6312	192.0
Boundary - SSE	9672	167.6
Boundary - S	12912	152.4
Boundary - SSW	15960	146.3
Boundary - SW	14784	152.4
Boundary - WSW	13752	192.0
Boundary - W	11256	198.1
Boundary - WNW	11496	167.6
Boundary - NW	13680	198.1
Boundary - NNW	12480	198.1
Boundary - 17th	1608	179.8

Receptor List: ORR

Receptor	Distance (m)	Elevation (m)
Radial	500	204.2
Radial	1000	225.6
Radial	1500	222.5
Radial	2000	231.6
Radial	2500	246.9
Radial	3000	249.9
Radial	3500	243.8
Radial	4000	249.9
Radial	4500	249.9
Radial	5000	257.6
Cafeteria	3792	231.6
N. Bald Eagle	5712	179.8
S. Bald Eagle	8688	155.4
DG Retreat	840	207.3
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Padanaram	9360	167.6
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Burns City	5400	213.4
Boundary - N	9336	228.6
Boundary - NNE	10440	249.9
Boundary - NE	11160	222.5
Boundary - ENE	13296	216.4
Boundary - E	7056	198.1
Boundary - ESE	5160	182.9
Boundary - SE	5040	192.0
Boundary - SSE	7920	167.6
Boundary - S	9432	152.4
Boundary - SSW	10152	146.3
Boundary - SW	8736	152.4
Boundary - WSW	7344	192.0
Boundary - W	4848	198.1
Boundary - WNW	5496	167.6
Boundary - NW	8904	198.1
Boundary - NNW	9168	198.1
Boundary - 17th	8136	179.8

FDM

Gridded and Discrete Receptor
Location based on DG as the Origin
NSWC-Crane
Crane, Indiana

Receptor	Azimuth Angle**	Distance	X-Coordinate	Y-Coordinate	Elevation	Elevation
	degrees	meters	meters	meters	feet	meters
Gridded Receptors						
n1	90	500	0	500		
n2	90	1000	0	1000		
n3	90	1500	0	1500		
n4	90	2000	0	2000		
n5	90	2500	0	2500		
n6	90	3000	0	3000		
n7	90	3500	0	3500		
n8	90	4000	0	4000		
n9	90	4500	0	4500		
n10	90	5000	0	5000		
n11	90	5500	0	5500		
n12	90	6000	0	6000		
n13	90	6500	0	6500		
n14	90	7000	0	7000		
n15	90	7500	0	7500		
n16	90	8000	0	8000		
n17	90	8500	0	8500		
n18	90	9000	0	9000		
n19	90	9500	0	9500		
north BOUNDARY	90	9800	0	9800	750	229
nne1	67.5	500	191	462		
nne2	67.5	1000	383	924		
nne3	67.5	1500	574	1386		
nne4	67.5	2000	765	1848		
nne5	67.5	2500	957	2310		
nne6	67.5	3000	1148	2772		
nne7	67.5	3500	1339	3234		
nne8	67.5	4000	1531	3696		
nne9	67.5	4500	1722	4157		
nne10	67.5	5000	1913	4619		
nne11	67.5	5500	2105	5081		
nne12	67.5	6000	2296	5543		
nne13	67.5	6500	2487	6005		
nne14	67.5	7000	2679	6467		
nne15	67.5	7500	2870	6929		
nne16	67.5	8000	3061	7391		
nne17	67.5	8500	3253	7853		
nne18	67.5	9000	3444	8315		
nne19	67.5	9500	3635	8777		
nne20	67.5	10000	3827	9239		
nne21	67.5	10500	4018	9701		
north-northeast Boundary	67.5	11000	4210	10163	820	250
ne1	45	500	354	354		
ne2	45	1000	707	707		
ne3	45	1500	1061	1061		
ne4	45	2000	1414	1414		

Gridded and Discrete Receptor
Location based on DG as the Origin
NSWC-Crane
Crane, Indiana

ne5	45	2500	1768	1768		
ne6	45	3000	2121	2121		
ne7	45	3500	2475	2475		
ne8	45	4000	2828	2828		
ne9	45	4500	3182	3182		
ne10	45	5000	3536	3536		
ne11	45	5500	3889	3889		
ne12	45	6000	4243	4243		
ne13	45	6500	4596	4596		
ne14	45	7000	4950	4950		
ne15	45	7500	5303	5303		
ne16	45	8000	5657	5657		
ne17	45	8500	6010	6010		
ne18	45	9000	6364	6364		
ne19	45	9500	6718	6718		
ne20	45	10000	7071	7071		
ne21	45	10500	7425	7425		
ne22	45	11000	7778	7778		
ne23	45	11500	8132	8132		
northeast BOUNDARY	45	11900	8415	8415	730	**223**
ene1	22.5	500	462	191		
ene2	22.5	1000	924	383		
ene3	22.5	1500	1386	574		
ene4	22.5	2000	1848	765		
ene5	22.5	2500	2310	957		
ene6	22.5	3000	2772	1148		
ene7	22.5	3500	3234	1339		
ene8	22.5	4000	3696	1531		
ene9	22.5	4500	4157	1722		
ene10	22.5	5000	4619	1913		
ene11	22.5	5500	5081	2105		
ene12	22.5	6000	5543	2296		
ene13	22.5	6500	6005	2487		
ene14	22.5	7000	6467	2679		
ene15	22.5	7500	6929	2870		
ene16	22.5	8000	7391	3061		
ene17	22.5	8500	7853	3253		
ene18	22.5	9000	8315	3444		
ene19	22.5	9500	8777	3635		
ene20	22.5	10000	9239	3827		
ene21	22.5	10500	9701	4018		
ene22	22.5	11000	10163	4210		
ene23	22.5	11500	10625	4401		
ene24	22.5	12000	11087	4592		
ene25	22.5	12500	11548	4784		
ene26	22.5	13000	12010	4975		
ene27	22.5	13500	12472	5166		
east-northeast BOUNDARY	22.5	13900	12842	5319	710	[illegible]7
e1	0	500	500	0		

Gridded and Discrete Receptor
Location based on DG as the Origin
NSWC-Crane
Crane, Indiana

e2	0	1500	1500	0		
e3	0	2000	2000	0		
e4	0	2500	2500	0		
e5	0	3000	3000	0		
e6	0	3500	3500	0		
e7	0	4000	4000	0		
e8	0	4500	4500	0		
e9	0	5000	5000	0		
e10	0	5500	5500	0		
e11	0	6000	6000	0		
e12	0	6500	6500	0		
e13	0	7000	7000	0		
e14	0	7500	7500	0		
east BOUNDARY	0	7700	7700	0	650	198
ese1	337.5	500	462	-191		
ese2	337.5	1000	924	-383		
ese3	337.5	1500	1386	-574		
ese4	337.5	2000	1848	-765		
ese5	337.5	2500	2310	-957		
ese6	337.5	3000	2772	-1148		
ese7	337.5	3500	3234	-1339		
ese8	337.5	4000	3696	-1531		
ese9	337.5	4500	4157	-1722		
ese10	337.5	5000	4619	-1913		
east-southeast BOUNDARY	337.5	5500	5081	-2105	600	183
se1	315	500	354	-354		
se2	315	1000	707	-707		
se3	315	1500	1061	-1061		
se4	315	2000	1414	-1414		
se5	315	2500	1768	-1768		
se6	315	3000	2121	-2121		
se7	315	3500	2475	-2475		
se8	315	4000	2828	-2828		
se9	315	4500	3182	-3182		
se10	315	5000	3536	-3536		
southeast BOUNDARY	315	5200	3677	-3677	630	192
sse1	292.5	500	191	-462		
sse2	292.5	1000	383	-924		
sse3	292.5	1500	574	-1386		
sse4	292.5	2000	765	-1848		
sse5	292.5	2500	957	-2310		
sse6	292.5	3000	1148	-2772		
sse7	292.5	3500	1339	-3234		
sse8	292.5	4000	1531	-3696		
sse9	292.5	4500	1722	-4157		
sse10	292.5	5000	1913	-4619		
sse11	292.5	5500	2105	-5081		
sse12	292.5	6000	2296	-5543		
sse13	292.5	6500	2487	-6005		

Gridded and Discrete Receptor
Location based on DG as the Origin
NSWC-Crane
Crane, Indiana

sse14	292.5	7000	2679	-6467		
sse15	292.5	7500	2870	-6929		
south-southeast BOUNDARY	292.5	8000	3061	-7391	550	168
s1	270	500	0	-500		
s2	270	1000	0	-1000		
s3	270	1500	0	-1500		
s4	270	2000	0	-2000		
s5	270	2500	0	-2500		
s6	270	3000	0	-3000		
s7	270	3500	0	-3500		
s8	270	4000	0	-4000		
s9	270	4500	0	-4500		
s10	270	5000	0	-5000		
s11	270	5500	0	-5500		
s12	270	6000	0	-6000		
s13	270	6500	0	-6500		
s14	270	7000	0	-7000		
s15	270	7500	0	-7500		
s16	270	8000	0	-8000		
s17	270	8500	0	-8500		
south BOUNDARY	270	9000	0	-9000	500	153
ssw1	247.5	500	-191	-462		
ssw2	247.5	1000	-383	-924		
ssw3	247.5	1500	-574	-1386		
ssw4	247.5	2000	-765	-1848		
ssw5	247.5	2500	-957	-2310		
ssw6	247.5	3000	-1148	-2772		
ssw7	247.5	3500	-1339	-3234		
ssw8	247.5	4000	-1531	-3696		
ssw9	247.5	4500	-1722	-4157		
ssw10	247.5	5000	-1913	-4619		
ssw11	247.5	5500	-2105	-5081		
ssw12	247.5	6000	-2296	-5543		
ssw13	247.5	6500	-2487	-6005		
ssw14	247.5	7000	-2679	-6467		
ssw15	247.5	7500	-2870	-6929		
ssw16	247.5	8000	-3061	-7391		
ssw17	247.5	8500	-3253	-7853		
ssw18	247.5	9000	-3444	-8315		
ssw19	247.5	9500	-3635	-8777		
ssw20	247.5	10000	-3827	-9239		
south-southwest BOUNDARY	247.5	10300	-3942	-9516	480	146
sw1	225	500	-354	-354		
sw2	225	1500	-1061	-1061		
sw3	225	2000	-1414	-1414		
sw4	225	2500	-1768	-1768		
sw5	225	3000	-2121	-2121		
sw6	225	3500	-2475	-2475		
sw7	225	4000	-2828	-2828		

Gridded and Discrete Receptor
Location based on DG as the Origin
NSWC-Crane
Crane, Indiana

sw8	225	4500	-3182	-3182		
sw9	225	5000	-3536	-3536		
sw10	225	5500	-3889	-3889		
sw11	225	6000	-4243	-4243		
sw12	225	6500	-4596	-4596		
sw13	225	7000	-4950	-4950		
sw14	225	7500	-5303	-5303		
sw15	225	8000	-5657	-5657		
southwest BOUNDARY	225	8400	-5940	-5940	500	153
wsw1	202.5	500	-462	-191		
wsw2	202.5	1500	-1386	-574		
wsw3	202.5	2000	-1848	-765		
wsw4	202.5	2500	-2310	-957		
wsw5	202.5	3000	-2772	-1148		
wsw6	202.5	3500	-3234	-1339		
wsw7	202.5	4000	-3696	-1531		
wsw8	202.5	4500	-4157	-1722		
wsw9	202.5	5000	-4619	-1913		
wsw10	202.5	5500	-5081	-2105		
wsw11	202.5	6000	-5543	-2296		
west-southwest BOUNDARY	202.5	6500	-6005	-2487	630	192
w1	180	500	-500	0		
w2	180	1500	-1500	0		
w3	180	2000	-2000	0		
w4	180	2500	-2500	0		
w5	180	3000	-3000	0		
w6	180	3500	-3500	0		
w7	180	4000	-4000	0		
west BOUNDARY	180	4300	-4300	0	650	198
wnw1	157.5	500	-462	191		
wnw2	157.5	1500	-1386	574		
wnw3	157.5	2000	-1848	765		
wnw4	157.5	2500	-2310	957		
wnw5	157.5	3000	-2772	1148		
wnw6	157.5	3500	-3234	1339		
wnw7	157.5	4000	-3696	1531		
wnw8	157.5	4500	-4157	1722		
west-northwest Boundary	157.5	5000	-4619	1913	550	168
nw1	135	500	-354	354		
nw2	135	1500	-1061	1061		
nw3	135	2000	-1414	1414		
nw4	135	2500	-1768	1768		
nw5	135	3000	-2121	2121		
nw6	135	3500	-2475	2475		
nw7	135	4000	-2828	2828		
nw8	135	4500	-3182	3182		
nw9	135	5000	-3536	3536		
nw10	135	5500	-3889	3889		
nw11	135	6000	-4243	4243		

Gridded and Discrete Receptor
Location based on DG as the Origin
NSWC-Crane
Crane, Indiana

nw12	135	6500	-4596	4596		
nw13	135	7000	-4950	4950		
nw14	135	7500	-5303	5303		
nw15	135	8000	-5657	5657		
northwest BOUNDARY	135	8400	-5940	5940	650	198
nnw1	112.5	500	-191	462		
nnw2	112.5	1500	-574	1386		
nnw3	112.5	2000	-765	1848		
nnw4	112.5	2500	-957	2310		
nnw5	112.5	3000	-1148	2772		
nnw6	112.5	3500	-1339	3234		
nnw7	112.5	4000	-1531	3696		
nnw8	112.5	4500	-1722	4157		
nnw9	112.5	5000	-1913	4619		
nnw10	112.5	5500	-2105	5081		
nnw11	112.5	6000	-2296	5543		
nnw12	112.5	6500	-2487	6005		
nnw13	112.5	7000	-2679	6467		
nnw14	112.5	7500	-2870	6929		
nnw15	112.5	7700	-2947	7114		
nnw16	112.5	5500	-2105	5081		
nnw17	112.5	5200	-1990	4804		
nnw18	112.5	8000	-3061	7391		
nnw19	112.5	9000	-3444	8315		
north-northwest BOUNDARY	112.5	9100	-3482	8407	650	8
On-Site Discrete						
NSWCC Cafeteria Area	75	4100	1061	3960	760	232
Northern Bald Eagle Nest	88	6000	209	5996	590	180
Southern Bald Eagle Nest	258	8200	-1705	-8021	510	156
DG Retreat Building	118	600	-282	530	680	207
ABG Retreat Building	13	6600	6431	1485	600	183
17th Boundary	11	8845	8682	1688		180
Offsite Discrete						
Padanaram Commune	4	10000	9976	698	550	168
Indian Springs	328	7000	5936	-3709	530	162
Silverville	13	14900	14518	3352	520	159
Burns City	188	4900	-4852	-682	700	214
** Based on mathematical polar coordinate grid with north being 90 degrees.						
Origin is based at the Demolition Ground (DG).						

APPENDIX D-2

DISPERSION MODEL
EXAMPLE OUTPUT FILES

(Remaining Dispersion Model Output Files Can be Found on Electronic Media in Appendix D-11)

INPUFF

INPUFF 2.3 · MULTIPLE SOURCE INTEGRATED PUFF MODEL

CRANE/RA ABG FUEL ASSISTED RELEASE/115m PH-4.7 M/SEC-D STABILITY

M O D E L O P T I O N S A "T" INDICATES THAT THE OPTION HAS BEEN EXERCISED

USER SUPPLIED WIND FIELD	F
UNIT 22 OUTPUT OPTION	F
PRINT PUFF INFORMATION	F
INTERMEDIATE CONCENTRATIONS	F

DISPERSION CALCULATED USING PASQUILL-GIFFORD (DISTANCE DEPENDENT) SIGMA CURVES,
WITH TRANSITION TO DRAXLER'S LONG RANGE TRANSPORT SIGMA-Y AT SYMAX = 1000.0 METERS.

B E G I N A N A L Y S I S O F S O U R C E N U M B E R 1

S O U R C E O P T I O N S A "T" INDICATES THAT THE OPTION HAS BEEN EXERCISED

STACK DOWNWASH	F
BUOYANCY INDUCED DISPERSION	T
DEPOSITION AND SETTLING	F
USER PLUME RISE	F
PERFORM PUFF COMBINATIONS	T

I N P U T P A R A M E T E R S

SOURCE UPDATE INTERVAL = 60 SECONDS. (-1 INDICATES NO UPDATE)
START CONCENTRATION CALCULATIONS AT TIME = 0 SECONDS.
ANEMOMETER HEIGHT = 10.0 METERS.

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 0 SECONDS EAST (KM)	NORTH (KM)
.756E+01	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
0	60	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 0 TO 60 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 60 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
60	120	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 60 TO 120 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS

X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 120 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
120	180	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 120 TO 180 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	6.656E-14

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 180 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
180	240	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 180 TO 240 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	8.118E-12
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	7.771E-07

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 240 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
240	300	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 240 TO 300 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	1.014E-06
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	6.188E-06

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 300 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
300	360	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 300 TO 360 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS

X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	6.698E-06
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	8.613E-07

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 360 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
360	420	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 360 TO 420 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	1.213E-06
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	9.916E-10

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 420 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
420	480	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 420 TO 480 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	5.218E-09
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	7.021E-14

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 480 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
480	540	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 480 TO 540 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	2.725E-12
0.000	4.272	0.000	7.594E-10
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 540 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
540	600	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 540 TO 600 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	2.659E-07
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 600 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
600	660	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 600 TO 660 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	3.271E-06
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 660 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
660	720	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 660 TO 720 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	3.320E-06
0.000	6.312	0.000	2.324E-15
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 720 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
720	780	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 720 TO 780 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	5.667E-07
0.000	6.312	0.000	8.090E-11
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 780 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
780	840	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 780 TO 840 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	7.836E-12
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	2.793E-08
0.000	6.312	0.000	2.248E-08
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 840 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
840	900	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 840 TO 900 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	3.500E-09
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	6.199E-10
0.000	6.312	0.000	4.986E-07
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 900 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
900	960	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 900 TO 960 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	1.380E-07
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	8.521E-12
0.000	6.312	0.000	1.856E-06
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 960 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
960	1020	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 960 TO 1020 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	9.452E-07
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	8.386E-14
0.000	6.312	0.000	1.832E-06
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1020 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1020	1080	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1020 TO 1080 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	1.742E-06
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	6.601E-07
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1080 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1080	1140	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1080 TO 1140 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	1.167E-06
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	1.114E-07
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1140 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1140	1200	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1140 TO 1200 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	3.590E-07
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	1.077E-08
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1200 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1200	1260	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1200 TO 1260 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	6.092E-08
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	6.950E-10
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1260 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1260	1320	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1260 TO 1320 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	6.616E-09
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	3.374E-11
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1320 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1320	1380	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1320 TO 1380 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	5.160E-10
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	1.347E-12
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1380 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1380	1440	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1380 TO 1440 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	3.163E-11
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	4.494E-14
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1440 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1440	1500	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1440 TO 1500 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	1.634E-12
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1500 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1500	1560	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1500 TO 1560 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	7.482E-14
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1560 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1560	1620	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1560 TO 1620 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1620 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1620	1680	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1620 TO 1680 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1680 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1680	1740	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1680 TO 1740 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1740 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1740	1800	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1740 TO 1800 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1800 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1800	1860	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1800 TO 1860 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1860 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1860	1920	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1860 TO 1920 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1920 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1920	1980	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1920 TO 1980 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 1980 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
1980	2040	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 1980 TO 2040 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2040 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2040	2100	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2040 TO 2100 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2100 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2100	2160	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2100 TO 2160 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2160 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2160	2220	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2160 TO 2220 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2220 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2220	2280	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2220 TO 2280 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2280 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2280	2340	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2280 TO 2340 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS

X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2340 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2340	2400	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2340 TO 2400 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2400 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2400	2460	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2400 TO 2460 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2460 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2460	2520	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2460 TO 2520 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2520 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2520	2580	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2520 TO 2580 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2580 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	Ü PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2580	2640	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2580 TO 2640 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2640 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2640	2700	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2640 TO 2700 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS

X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * INFORMATION FOR SOURCE NUMBER 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2700 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * METEOROLOGY * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2700	2760	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2700 TO 2760 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2760 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2760	2820	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2760 TO 2820 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2820 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2820	2880	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2820 TO 2880 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS

X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2880 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2880	2940	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2880 TO 2940 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 2940 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
2940	3000	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 2940 TO 3000 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3000 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3000	3060	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3000 TO 3060 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS

X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3060 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3060	3120	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3060 TO 3120 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3120 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3120	3180	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3120 TO 3180 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3180 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3180	3240	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3180 TO 3240 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3240 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3240	3300	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3240 TO 3300 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3300 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3300	3360	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3300 TO 3360 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3360 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3360	3420	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3360 TO 3420 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3420 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3420	3480	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3420 TO 3480 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3480 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3480	3540	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3480 TO 3540 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS

X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* * * I N F O R M A T I O N F O R S O U R C E N U M B E R 1 * * *

SOURCE STRENGTH (G/SEC)	STACK HEIGHT (M)	STACK TEMP. (DEG-K)	STACK GAS VELOCITY (M/SEC)	STACK DIAMETER (M)	VOLUME FLOW (M**3/SEC)	COORD. AT TIME 3540 SECONDS EAST (KM)	NORTH (KM)
.000E+00	1.00	672.000	2.750	3.400	27.200	0.000	0.000

SOURCE SPEED (M/SEC)	SOURCE DIRECTION (DEG)	PLUME HEIGHT (M)	INITIAL SIGMAS (R) (M)	(Z) (M)	DEPOSITION VELOCITY (CM/SEC)	SETTLING VELOCITY (CM/SEC)
0.000	0.0	112.44	1.0	1.0	1.00	1.00

* * * M E T E O R O L O G Y * * *

WIND DIR. (DEG)	WIND SPD. (M/SEC)	MIXING HGT. (M)	PROF.EP (DIMEN)	STABILITY (CLASS)	U PLUME (M/SEC)	TEMP (K)	SIGMA TH. (RAD.)	SIGMA PH. (RAD.)
180.0	4.700	733.	0.150	4	6.757	286.0	0.1300	0.0900

SIMULATION PERIOD START (SEC)	STOP (SEC)	SIMULATION TIME (SEC)	PUFF RELEASE RATE (SEC)	SOURCE RECEPTOR DISTANCE (KM)	PUFF COMB. CRITERION (SIGMAS)
3540	3600	60	1.000	0.50	1.000

60 SEC AVG. CONCENTRATION AT RECEPTORS FOR SIMULATION PERIOD 3540 TO 3600 SECONDS

DUE TO SOURCE NUMBER 1

RECEPTORS X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	0.000E-01
0.000	2.016	0.000	0.000E-01
0.000	4.272	0.000	0.000E-01
0.000	6.312	0.000	0.000E-01
0.000	1.608	0.000	0.000E-01

* *

1.00 HR AVG. CONCENTRATION AT RECEPTORS FOR ALL SIMULATION PERIODS
DUE TO SOURCE NUMBER 1

RECEPTORS			
X (KM)	Y (KM)	Z (M)	CONCENTRATION (G/M**3)
0.000	6.960	0.000	7.371E-08
0.000	2.016	0.000	1.488E-07
0.000	4.272	0.000	1.242E-07
0.000	6.312	0.000	8.321E-08
0.000	1.608	0.000	1.304E-07

ISCST3

```
                    IBM-PC VERSION (3.04)      ISCST3R
        (C) COPYRIGHT 1992-1996, TRINITY CONSULTANTS, INC.

 Run Began on  7/03/1997 at 15:43:03

 ** BREEZE AIR ISCST3 - C:\PROJECTS\CRANE\ABG_13A.DAT
 ** Trinity Consultants Incorporated, Dallas, TX

 CO STARTING
 CO TITLEONE  NSWC Crane ABG ISCST MODELING
 CO TITLETWO  1.3 m/s A Stability
 CO MODELOPT  DFAULT  CONC  RURAL
 CO AVERTIME  1  PERIOD
 CO POLLUTID  OTHER
 CO TERRHGTS  ELEV
 CO RUNORNOT  RUN
 CO EVENTFIL  C:\PROJECTS\CRANE\ABG_ISC.EVI SOCONT
 CO SAVEFILE  C:\PROJECTS\CRANE\ABG_ISC.SV1  5  C:\PROJECTS\CRANE\ABG_ISC.SV2
 CO ERRORFIL  C:\PROJECTS\CRANE\ABG_ISC.ERR
 CO FINISHED

 SO STARTING
 SO ELEVUNIT  METERS
 SO LOCATION  ABG  POINT  0.0  0.0  183
 ** SRCDESCR  ABG OB Treatment
 SO SRCPARAM  ABG  1.259979E-01  1  672  3  3.4
 SO SRCGROUP  ALL
 SO FINISHED

 RE STARTING
 RE ELEVUNIT  METERS
 RE DISCCART  500.0  0.0  243.8
 ** RCPDESCR  RADIAL1
 RE DISCCART  1000.0  0.0  253
 ** RCPDESCR  RADIAL2
 RE DISCCART  1500.0  0.0  253
 ** RCPDESCR  RADIAL3
 RE DISCCART  2000.0  0.0  253
 ** RCPDESCR  RADIAL4
 RE DISCCART  2500.0  0.0  249.9
 ** RCPDESCR  RADIAL5
 RE DISCCART  3000.0  0.0  246.9
 ** RCPDESCR  RADIAL6
 RE DISCCART  3500.0  0.0  246.9
 ** RCPDESCR  RADIAL7
 RE DISCCART  4000.0  0.0  259.1
 ** RCPDESCR  RADIAL8
 RE DISCCART  4500.0  0.0  256
 ** RCPDESCR  RADIAL9
 RE DISCCART  5000.0  0.0  262.1
 ** RCPDESCR  RADIAL10
 RE DISCCART  6168.0  0.0  231.6
 ** RCPDESCR  CAFETERIA
 RE DISCCART  7800.0  0.0  179.8
 ** RCPDESCR  N. BALD EAGLE
 RE DISCCART  12960.0  0.0  155.4
 ** RCPDESCR  S. BALD EAGLE
 RE DISCCART  7200.0  0.0  207.3
 ** RCPDESCR  DG RETREAT
 RE DISCCART  120.0  0.0  182.9
 ** RCPDESCR  ABG RETREAT
 RE DISCCART  3312.0  0.0  167.6
 ** RCPDESCR  PADANARAM
 RE DISCCART  5520.0  0.0  161.5
 ** RCPDESCR  INDIAN SPRINGS
 RE DISCCART  7680.0  0.0  158.5
 ** RCPDESCR  SILVERVILLE
 RE DISCCART  11880.0  0.0  213.4
 ** RCPDESCR  BURNS CITY
 RE DISCCART  10272.0  0.0  228.6
 ** RCPDESCR  N BOUNDARY
 RE DISCCART  8280.0  0.0  249.9
 ** RCPDESCR  NNE BOUNDARY
 RE DISCCART  6648.0  0.0  222.5
```

```
** RCPDESCR  NE BOUNDARY
RE DISCCART  6960.0  0.0  216.4
** RCPDESCR  ENE BOUNDARY
RE DISCCART  2016.0  0.0  198.1
** RCPDESCR  E BOUNDARY
RE DISCCART  4272.0  0.0  182.9
** RCPDESCR  ESE BOUNDARY
RE DISCCART  6312.0  0.0  192
** RCPDESCR  SE BOUNDARY
RE DISCCART  9672.0  0.0  167.6
** RCPDESCR  SSE BOUNDARY
RE DISCCART  12912.0  0.0  152.4
** RCPDESCR  S BOUNDARY
RE DISCCART  15960.0  0.0  146.3
** RCPDESCR  SSW BOUNDARY
RE DISCCART  14784.0  0.0  152.4
** RCPDESCR  SW BOUNDARY
RE DISCCART  13752.0  0.0  192
** RCPDESCR  WSW BOUNDARY
RE DISCCART  11256.0  0.0  198.1
** RCPDESCR  W BOUNDARY
RE DISCCART  11496.0  0.0  167.6
** RCPDESCR  WNW BOUNDARY
RE DISCCART  13680.0  0.0  198.1
** RCPDESCR  NW BOUNDARY
RE DISCCART  12480.0  0.0  198.1
** RCPDESCR  NNW BOUNDARY
RE DISCCART  1608.0  0.0  179.8
** RCPDESCR  17TH BOUNDARY
RE FINISHED

ME STARTING
ME INPUTFIL  C:\PROJECTS\CRANE\13A.ASC
ME ANEMHGHT  10.0  METERS
ME SURFDATA  1  1987
ME UAIRDATA  1  1987
ME DAYRANGE  1
ME FINISHED

OU STARTING
OU RECTABLE  1  FIRST
OU FINISHED

**********************************
*** SETUP Finishes Successfully ***
**********************************
```

```
 *** ISCST3 - VERSION 96113 ***     ***  NSWC Crane ABG ISCST MODELING
***        07/03/97
                                    ***  1.3 m/s A Stability
***        15:43:05

PAGE   1
**MODELOPTs: CONC                          RURAL  ELEV          DFAULT
                                              ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - -

 **Intermediate Terrain Processing is Selected

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  SCAVENGING/DEPOSITION LOGIC --
 **Model Uses NO DRY DEPLETION.  DDPLETE = F
 **Model Uses NO WET DEPLETION.  WDPLETE = F
 **NO WET SCAVENGING Data Provided.
 **Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

 **Model Uses RURAL Dispersion.

 **Model Uses Regulatory DEFAULT Options:
          1. Final Plume Rise.
          2. Stack-tip Downwash.
          3. Buoyancy-induced Dispersion.
          4. Use Calms Processing Routine.
          5. Not Use Missing Data Processing Routine.
          6. Default Wind Profile Exponents.
          7. Default Vertical Potential Temperature Gradients.
          8. "Upper Bound" Values for Supersquat Buildings.
          9. No Exponential Decay for RURAL Mode

 **Model Accepts Receptors on ELEV Terrain.

 **Model Assumes No FLAGPOLE Receptor Heights.

 **Model Calculates  1 Short Term Average(s) of:   1-HR
    and Calculates PERIOD Averages

 **This Run Includes:    1 Source(s);      1 Source Group(s); and     36 Receptor(s)

 **The Model Assumes A Pollutant Type of:  OTHER

 **Model Set To Continue RUNning After the Setup Testing.

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =    .0000     ;    Rot. Angle =      .0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor
=    .10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Input Runstream File: C:\PROJECTS\CRANE\ABG_13A.DAT           ;  **Output Print File:
C:\PROJECTS\CRANE\ABG_13A.LST
 **File Created for Event Model:  C:\PROJECTS\CRANE\ABG_ISC.EVI
 **File for Saving Result Arrays: C:\PROJECTS\CRANE\ABG_ISC.SV1
 **Detailed Error/Message File:   C:\PROJECTS\CRANE\ABG_ISC.ERR
```

*** ISCST3 - VERSION 96113 *** *** NSWC Crane ABG ISCST MODELING
*** 07/03/97
*** 1.3 m/s A Stability
*** 15:43:05

**MODELOPTs: CONC RURAL ELEV DFAULT

*** POINT SOURCE DATA ***

BUILDING SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	EMISSION RATE EXISTS BY SCALAR VARY
ABG	0	.12600E+00	.0	.0	183.0	1.00	672.00	3.00	3.40	NO

**MODELOPTs: CONC RURAL ELEV DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	ABG ,

**MODELOPTs: CONC RURAL ELEV DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(500.0,	.0,	243.8,	.0);	(1000.0,	.0,	253.0,	.0);
(1500.0,	.0,	253.0,	.0);	(2000.0,	.0,	253.0,	.0);
(2500.0,	.0,	249.9,	.0);	(3000.0,	.0,	246.9,	.0);
(3500.0,	.0,	246.9,	.0);	(4000.0,	.0,	259.1,	.0);
(4500.0,	.0,	256.0,	.0);	(5000.0,	.0,	262.1,	.0);
(6168.0,	.0,	231.6,	.0);	(7800.0,	.0,	179.8,	.0);
(12960.0,	.0,	155.4,	.0);	(7200.0,	.0,	207.3,	.0);
(120.0,	.0,	182.9,	.0);	(3312.0,	.0,	167.6,	.0);
(5520.0,	.0,	161.5,	.0);	(7680.0,	.0,	158.5,	.0);
(11880.0,	.0,	213.4,	.0);	(10272.0,	.0,	228.6,	.0);
(8280.0,	.0,	249.9,	.0);	(6648.0,	.0,	222.5,	.0);
(6960.0,	.0,	216.4,	.0);	(2016.0,	.0,	198.1,	.0);
(4272.0,	.0,	182.9,	.0);	(6312.0,	.0,	192.0,	.0);
(9672.0,	.0,	167.6,	.0);	(12912.0,	.0,	152.4,	.0);
(15960.0,	.0,	146.3,	.0);	(14784.0,	.0,	152.4,	.0);
(13752.0,	.0,	192.0,	.0);	(11256.0,	.0,	198.1,	.0);
(11496.0,	.0,	167.6,	.0);	(13680.0,	.0,	198.1,	.0);
(12480.0,	.0,	198.1,	.0);	(1608.0,	.0,	179.8,	.0);

**MODELOPTs: CONC RURAL ELEV DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01

F .35000E-01 .35000E-01 .35000E-01 .35000E-01 .35000E-01
.35000E-01

*** ISCST3 - VERSION 96113 *** *** NSWC Crane ABG ISCST MODELING
*** 07/03/97
*** 1.3 m/s A Stability
*** 15:43:05

**MODELOPTs: CONC RURAL ELEV DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\PROJECTS\CRANE\13A.ASC FORMAT:
(4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 1 UPPER AIR STATION NO.: 1
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 1987 YEAR: 1987

LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)	YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O (M)
.0	.0000	0	.00	99	1	1	1	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	2	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	3	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	4	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	5	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	6	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	7	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	8	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	9	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	10	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	11	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	12	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	13	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	14	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	15	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	16	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	17	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	18	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	19	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	20	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	21	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	22	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	23	90.0	1.30	286.0	1	5000.0	5000.0	.0000	
.0	.0000	0	.00	99	1	1	24	90.0	1.30	286.0	1	5000.0	5000.0	.0000	

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** ISCST3 - VERSION 96113 *** *** NSWC Crane ABG ISCST MODELING
*** 07/03/97
*** 1.3 m/s A Stability
*** 15:43:05

**MODELOPTs: CONC RURAL ELEV DFAULT

*** THE PERIOD (24 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): ABG ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
500.00	.00	.47157	1000.00	.00	.35906
1500.00	.00	.11841	2000.00	.00	.04951
2500.00	.00	.02520	3000.00	.00	.01691
3500.00	.00	.01430	4000.00	.00	.01252
4500.00	.00	.01112	5000.00	.00	.01001
6168.00	.00	.00812	7800.00	.00	.00628
12960.00	.00	.00408	7200.00	.00	.00695
120.00	.00	.00000	3312.00	.00	.01303
5520.00	.00	.00843	7680.00	.00	.00636
11880.00	.00	.00439	10272.00	.00	.00497
8280.00	.00	.00605	6648.00	.00	.00753
6960.00	.00	.00719	2016.00	.00	.04822
4272.00	.00	.01049	6312.00	.00	.00793
9672.00	.00	.00523	12912.00	.00	.00409
15960.00	.00	.00342	14784.00	.00	.00365
13752.00	.00	.00388	11256.00	.00	.00460
11496.00	.00	.00451	13680.00	.00	.00390
12480.00	.00	.00421	1608.00	.00	.07321

*** ISCST3 - VERSION 96113 *** *** NSWC Crane ABG ISCST MODELING
*** 07/03/97
*** 1.3 m/s A Stability
*** 15:43:05

**MODELOPTs: CONC RURAL ELEV DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): ABG ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
500.00	.00	.47157	(99010101)	1000.00	.00	.35906	(99010101)
1500.00	.00	.11841	(99010101)	2000.00	.00	.04951	(99010101)
2500.00	.00	.02520	(99010101)	3000.00	.00	.01691	(99010101)
3500.00	.00	.01430	(99010101)	4000.00	.00	.01252	(99010101)
4500.00	.00	.01112	(99010101)	5000.00	.00	.01001	(99010101)
6168.00	.00	.00812	(99010101)	7800.00	.00	.00628	(99010101)
12960.00	.00	.00408	(99010101)	7200.00	.00	.00695	(99010101)
120.00	.00	.00000	(99010101)	3312.00	.00	.01303	(99010101)
5520.00	.00	.00843	(99010101)	7680.00	.00	.00636	(99010101)
11880.00	.00	.00439	(99010101)	10272.00	.00	.00497	(99010101)
8280.00	.00	.00605	(99010101)	6648.00	.00	.00753	(99010101)
6960.00	.00	.00719	(99010101)	2016.00	.00	.04822	(99010101)
4272.00	.00	.01049	(99010101)	6312.00	.00	.00793	(99010101)
9672.00	.00	.00523	(99010101)	12912.00	.00	.00409	(99010101)
15960.00	.00	.00342	(99010101)	14784.00	.00	.00365	(99010101)
13752.00	.00	.00388	(99010101)	11256.00	.00	.00460	(99010101)
11496.00	.00	.00451	(99010101)	13680.00	.00	.00390	(99010101)
12480.00	.00	.00421	(99010101)	1608.00	.00	.07321	(99010101)

**MODELOPTs: CONC   RURAL ELEV   DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (24 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3
**

NETWORK GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	.47157 AT (	500.00,	.00,	243.80,	.00)	DC	NA
	2ND HIGHEST VALUE IS	.35906 AT (	1000.00,	.00,	253.00,	.00)	DC	NA

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

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  *** ISCST3 - VERSION 96113 ***     ***  NSWC Crane ABG ISCST MODELING
***        07/03/97
                                     ***  1.3 m/s A Stability
***        15:43:05

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 **MODELOPTs: CONC                        RURAL  ELEV          DFAULT

                                               *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                                           ** CONC OF OTHER    IN MICROGRAMS/M**3
**
                                                                 DATE
NETWORK
 GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV,
ZFLAG)     OF TYPE  GRID-ID
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - -

 ALL      HIGH  1ST HIGH VALUE IS        .47157  ON 99010101: AT (     500.00,         .00,    243.80,
.00)  DC      NA


  *** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
                       BD = BOUNDARY
```

```
 *** ISCST3 - VERSION 96113 ***     ***  NSWC Crane ABG ISCST MODELING
***        07/03/97
                                    ***  1.3 m/s A Stability
***        15:43:05

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 **MODELOPTs: CONC                        RURAL  ELEV          DFAULT


 *** Message Summary : ISCST3 Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           0 Warning Message(s)
 A Total of           0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** ISCST3 Finishes Successfully ***
    ************************************
```

FDM

1

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                FUGITIVE DUST MODEL (FDM)
                VERSION 92325
                NOV, 1992
     DATE AT START OF RUN: 07/10/97   TIME AT START OF RUN: 09:46:47.24


RUN TITLE:
     NWSC-CRANE WIND EROSION FROM DG AREA, IND MET DATA

     INPUT FILE NAME: crane2.in
     OUTPUT FILE NAME: crane91.out
     MET DATA READ FROM FILE NAME: crane91.bin


     CONVERGENCE OPTION 1=OFF, 2=ON                          1
     MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED              2
     PLOT FILE OUTPUT, 1=NO, 2=YES                           1
     MET DATA PRINT SWITCH, 1=NO, 2=YES                      1
     POST-PROCESSOR OUTPUT, 1=NO, 2=YES                      1
     DEP. VEL./GRAV. SETL. VEL., 1=DEFAULT, 2=USER           1
     PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES                3
     PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES                1
     PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES                3
     PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES               3
     PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES             4
     BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES            1
     READ HOURLY EMISSION RATES, 1=NO, 2=YES                 0
     NUMBER OF SOURCES PROCESSED                             1
     NUMBER OF RECEPTORS PROCESSED                         277
     NUMBER OF PARTICLE SIZE CLASSES                         1
     NUMBER OF HOURS OF MET DATA PROCESSED                8760
     LENGTH IN MINUTES OF 1-HOUR OF MET DATA              60.
     ROUGHNESS LENGTH IN CM                               1.00
     SCALING FACTOR FOR SOURCE AND RECPTORS             1.0000
     PARTICLE DENSITY IN G/CM**3                          2.00
     ANEMOMETER HEIGHT IN M                              10.00

     PREPROCESSED METEOROLOGICAL DATA SELECTION SWITCHES
     111111111111111111111111111111111111111111111111111111111111111111111111111111111111
     111111111111111111111111111111111111111111111111111111111111111111111111111111111111
     111111111111111111111111111111111111111111111111111111111111111111111111111111111111
     111111111111111111111111111111111111111111111111111111111111111111111111111111111111
     1111111111111111111111111111111111111111111110


     GENERAL PARTICLE SIZE CLASS INFORMATION

                                   GRAV.                  FRACTION
       PARTICLE          CHAR.  SETTLING  DEPOSITION      IN EACH
           SIZE           DIA.  VELOCITY    VELOCITY        SIZE
          CLASS           (UM)   (M/SEC)     (M/SEC)       CLASS
          -----  -----------  --------  ----------     --------
              1    10.0000000        **          **       1.0000
     ----------
     ** COMPUTED BY FDM
1

     RECEPTOR COORDINATES (X,Y,Z)
```

(0.,	500.,	0.)	(0.,	1000.,	0.)	(0.,	1500.,	0.)
(0.,	2000.,	0.)	(0.,	2500.,	0.)	(0.,	3000.,	0.)
(0.,	3500.,	0.)	(0.,	4000.,	0.)	(0.,	4500.,	0.)
(0.,	5000.,	0.)	(0.,	5500.,	0.)	(0.,	6000.,	0.)
(0.,	6500.,	0.)	(0.,	7000.,	0.)	(0.,	7500.,	0.)
(0.,	8000.,	0.)	(0.,	8500.,	0.)	(0.,	9000.,	0.)
(0.,	9500.,	0.)	(0.,	9800.,	0.)	(191.,	462.,	0.)
(383.,	924.,	0.)	(574.,	1386.,	0.)	(765.,	1848.,	0.)
(957.,	2310.,	0.)	(1148.,	2772.,	0.)	(1339.,	3234.,	0.)
(1531.,	3696.,	0.)	(1722.,	4157.,	0.)	(1913.,	4619.,	0.)
(2105.,	5081.,	0.)	(2296.,	5543.,	0.)	(2487.,	6005.,	0.)
(2679.,	6467.,	0.)	(2870.,	6929.,	0.)	(3061.,	7391.,	0.)
(3253.,	7853.,	0.)	(3444.,	8315.,	0.)	(3635.,	8777.,	0.)
(3827.,	9239.,	0.)	(4018.,	9701.,	0.)	(4210.,	10163.,	0.)
(354.,	354.,	0.)	(707.,	707.,	0.)	(1061.,	1061.,	0.)
(1414.,	1414.,	0.)	(1768.,	1768.,	0.)	(2121.,	2121.,	0.)
(2475.,	2475.,	0.)	(2828.,	2828.,	0.)	(3182.,	3182.,	0.)
(3536.,	3536.,	0.)	(3889.,	3889.,	0.)	(4243.,	4243.,	0.)
(4596.,	4596.,	0.)	(4950.,	4950.,	0.)	(5303.,	5303.,	0.)
(5657.,	5657.,	0.)	(6010.,	6010.,	0.)	(6364.,	6364.,	0.)
(6718.,	6718.,	0.)	(7071.,	7071.,	0.)	(7425.,	7425.,	0.)
(7778.,	7778.,	0.)	(8132.,	8132.,	0.)	(8415.,	8415.,	0.)
(462.,	191.,	0.)	(924.,	383.,	0.)	(1386.,	574.,	0.)
(1848.,	765.,	0.)	(2310.,	957.,	0.)	(2772.,	1148.,	0.)
(3234.,	1339.,	0.)	(3696.,	1531.,	0.)	(4157.,	1722.,	0.)
(4619.,	1913.,	0.)	(5081.,	2105.,	0.)	(5543.,	2296.,	0.)
(6005.,	2487.,	0.)	(6467.,	2679.,	0.)	(6929.,	2870.,	0.)
(7391.,	3061.,	0.)	(7853.,	3253.,	0.)	(8315.,	3444.,	0.)
(8777.,	3635.,	0.)	(9239.,	3827.,	0.)	(9701.,	4018.,	0.)
(10163.,	4210.,	0.)	(10625.,	4401.,	0.)	(11087.,	4592.,	0.)
(11548.,	4784.,	0.)	(12010.,	4975.,	0.)	(12472.,	5166.,	0.)
(12842.,	5319.,	0.)	(500.,	0.,	0.)	(1500.,	0.,	0.)
(2000.,	0.,	0.)	(2500.,	0.,	0.)	(3000.,	0.,	0.)
(3500.,	0.,	0.)	(4000.,	0.,	0.)	(4500.,	0.,	0.)
(5000.,	0.,	0.)	(5500.,	0.,	0.)	(6000.,	0.,	0.)
(6500.,	0.,	0.)	(7000.,	0.,	0.)	(7500.,	0.,	0.)
(7700.,	0.,	0.)	(462.,	-191.,	0.)	(924.,	-383.,	0.)
(1386.,	-574.,	0.)	(1848.,	-765.,	0.)	(2310.,	-957.,	0.)
(2772.,	-1148.,	0.)	(3234.,	-1339.,	0.)	(3696.,	-1531.,	0.)
(4157.,	-1722.,	0.)	(4619.,	-1913.,	0.)	(5081.,	-2105.,	0.)
(354.,	-354.,	0.)	(707.,	-707.,	0.)	(1061.,	-1061.,	0.)
(1414.,	-1414.,	0.)	(1768.,	-1768.,	0.)	(2121.,	-2121.,	0.)
(2475.,	-2475.,	0.)	(2828.,	-2828.,	0.)	(3182.,	-3182.,	0.)
(3536.,	-3536.,	0.)	(3677.,	-3677.,	0.)	(191.,	-462.,	0.)
(383.,	-924.,	0.)	(574.,	-1386.,	0.)	(765.,	-1848.,	0.)
(957.,	-2310.,	0.)	(1148.,	-2772.,	0.)	(1339.,	-3234.,	0.)
(1531.,	-3696.,	0.)	(1722.,	-4157.,	0.)	(1913.,	-4619.,	0.)
(2105.,	-5081.,	0.)	(2296.,	-5543.,	0.)	(2487.,	-6005.,	0.)
(2679.,	-6467.,	0.)	(2870.,	-6929.,	0.)	(3061.,	-7391.,	0.)
(0.,	-500.,	0.)	(0.,	-1000.,	0.)	(0.,	-1500.,	0.)
(0.,	-2000.,	0.)	(0.,	-2500.,	0.)	(0.,	-3000.,	0.)
(0.,	-3500.,	0.)	(0.,	-4000.,	0.)	(0.,	-4500.,	0.)
(0.,	-5000.,	0.)	(0.,	-5500.,	0.)	(0.,	-6000.,	0.)
(0.,	-6500.,	0.)	(0.,	-7000.,	0.)	(0.,	-7500.,	0.)
(0.,	-8000.,	0.)	(0.,	-8500.,	0.)	(0.,	-9000.,	0.)
(-191.,	-462.,	0.)	(-383.,	-924.,	0.)	(-574.,	-1386.,	0.)
(-765.,	-1848.,	0.)	(-957.,	-2310.,	0.)	(-1148.,	-2772.,	0.)
(-1339.,	-3234.,	0.)	(-1531.,	-3696.,	0.)	(-1722.,	-4157.,	0.)
(-1913.,	-4619.,	0.)	(-2105.,	-5081.,	0.)	(-2296.,	-5543.,	0.)

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( -2487.,  -6005.,  0.)  ( -2679.,  -6467.,  0.)  ( -2870.,  -6929.,  0.)
( -3061.,  -7391.,  0.)  ( -3253.,  -7853.,  0.)  ( -3444.,  -8315.,  0.)
( -3635.,  -8777.,  0.)  ( -3827.,  -9239.,  0.)  ( -3942.,  -9516.,  0.)
(  -354.,   -354.,  0.)  ( -1061.,  -1061.,  0.)  ( -1414.,  -1414.,  0.)
( -1768.,  -1768.,  0.)  ( -2121.,  -2121.,  0.)  ( -2475.,  -2475.,  0.)
( -2828.,  -2828.,  0.)  ( -3182.,  -3182.,  0.)  ( -3536.,  -3536.,  0.)
( -3889.,  -3889.,  0.)  ( -4243.,  -4243.,  0.)  ( -4596.,  -4596.,  0.)
( -4950.,  -4950.,  0.)  ( -5303.,  -5303.,  0.)  ( -5657.,  -5657.,  0.)
( -5940.,  -5940.,  0.)  (  -462.,   -191.,  0.)  ( -1386.,   -574.,  0.)
( -1848.,   -765.,  0.)  ( -2310.,   -957.,  0.)  ( -2772.,  -1148.,  0.)
( -3234.,  -1339.,  0.)  ( -3696.,  -1531.,  0.)  ( -4157.,  -1722.,  0.)
( -4619.,  -1913.,  0.)  ( -5081.,  -2105.,  0.)  ( -5543.,  -2296.,  0.)
( -6005.,  -2487.,  0.)  (  -500.,      0.,  0.)  ( -1500.,      0.,  0.)
( -2000.,      0.,  0.)  ( -2500.,      0.,  0.)  ( -3000.,      0.,  0.)
( -3500.,      0.,  0.)  ( -4000.,      0.,  0.)  ( -4300.,      0.,  0.)
(  -462.,    191.,  0.)  ( -1386.,    574.,  0.)  ( -1848.,    765.,  0.)
( -2310.,    957.,  0.)  ( -2772.,   1148.,  0.)  ( -3234.,   1339.,  0.)
( -3696.,   1531.,  0.)  ( -4157.,   1722.,  0.)  ( -4619.,   1913.,  0.)
(  -354.,    354.,  0.)  ( -1061.,   1061.,  0.)  ( -1414.,   1414.,  0.)
( -1768.,   1768.,  0.)  ( -2121.,   2121.,  0.)  ( -2475.,   2475.,  0.)
( -2828.,   2828.,  0.)  ( -3182.,   3182.,  0.)  ( -3536.,   3536.,  0.)
( -3889.,   3889.,  0.)  ( -4243.,   4243.,  0.)  ( -4596.,   4596.,  0.)
( -4950.,   4950.,  0.)  ( -5303.,   5303.,  0.)  ( -5657.,   5657.,  0.)
( -5940.,   5940.,  0.)  (  -191.,    462.,  0.)  (  -574.,   1386.,  0.)
(  -765.,   1848.,  0.)  (  -957.,   2310.,  0.)  ( -1148.,   2772.,  0.)
( -1339.,   3234.,  0.)  ( -1531.,   3696.,  0.)  ( -1722.,   4157.,  0.)
( -1913.,   4619.,  0.)  ( -2105.,   5081.,  0.)  ( -2296.,   5543.,  0.)
( -2487.,   6005.,  0.)  ( -2679.,   6467.,  0.)  ( -2870.,   6929.,  0.)
( -2947.,   7114.,  0.)  ( -2105.,   5081.,  0.)  ( -1990.,   4804.,  0.)
( -3061.,   7391.,  0.)  ( -3444.,   8315.,  0.)  ( -3482.,   8407.,  0.)
(  1061.,   3960.,  0.)  (   209.,   5996.,  0.)  ( -1705.,  -8021.,  0.)
(  -282.,    530.,  0.)  (  6431.,   1485.,  0.)  (  8682.,   1688.,  0.)
(  9976.,    698.,  0.)  (  5936.,  -3709.,  0.)  ( 14518.,   3352.,  0.)
( -4852.,   -682.,  0.)  (
1
```

SOURCE INFORMATION

TYPE	ENTERED EMIS. RATE (G/SEC, G/SEC/M OR G/SEC/M**2)	TOTAL EMISSION RATE (G/SEC)	WIND SPEED FAC.	X1 (M)	Y1 (M)	X2 (M)	Y2 (M)	HEIGHT (M)	WIDTH (M)
3	0.000000000	0.00001	-1.000	0.	0.	381.	228.	0.50	0.00

TOTAL EMISSIONS 0.86868E-05 GRAMS/SEC

NOTE: SOME SOURCE EMISSION RATES ARE A FUNCTION OF WIND SPEED AND TOTAL IS NOT CORRECT

LONG DISTANCE (50,000 M) MASS CONSERVATION CORRECTION FACTORS USED

1

8760 HOUR AVERAGE FOR HOUR ENDING 8760
CONCENTRATIONS IN MICROGRAMS/M**3
AVERAGE EMISSIONS FOR THIS PERIOD = 0.76100E+01 GRAMS/SEC

```
(     0.,    500.,    14.944)  (     0.,   1000.,     4.113)  (     0.,   1500.,     2.052)
(     0.,   2000.,     1.255)  (     0.,   2500.,     0.855)  (     0.,   3000.,     0.624)
(     0.,   3500.,     0.480)  (     0.,   4000.,     0.382)  (     0.,   4500.,     0.312)
(     0.,   5000.,     0.261)  (     0.,   5500.,     0.222)  (     0.,   6000.,     0.191)
(     0.,   6500.,     0.166)  (     0.,   7000.,     0.147)  (     0.,   7500.,     0.130)
(     0.,   8000.,     0.117)  (     0.,   8500.,     0.105)  (     0.,   9000.,     0.095)
```

(0.,	9500.,	0.087)	(0.,	9800.,	0.082)	(191.,	462.,	22.609)
(383.,	924.,	6.359)	(574.,	1386.,	3.170)	(765.,	1848.,	1.928)
(957.,	2310.,	1.308)	(1148.,	2772.,	0.952)	(1339.,	3234.,	0.730)
(1531.,	3696.,	0.580)	(1722.,	4157.,	0.474)	(1913.,	4619.,	0.395)
(2105.,	5081.,	0.336)	(2296.,	5543.,	0.289)	(2487.,	6005.,	0.252)
(2679.,	6467.,	0.222)	(2870.,	6929.,	0.197)	(3061.,	7391.,	0.176)
(3253.,	7853.,	0.158)	(3444.,	8315.,	0.144)	(3635.,	8777.,	0.131)
(3827.,	9239.,	0.120)	(4018.,	9701.,	0.110)	(4210.,	10163.,	0.102)
(354.,	354.,	30.619)	(707.,	707.,	8.041)	(1061.,	1061.,	3.838)
(1414.,	1414.,	2.291)	(1768.,	1768.,	1.537)	(2121.,	2121.,	1.111)
(2475.,	2475.,	0.848)	(2828.,	2828.,	0.672)	(3182.,	3182.,	0.546)
(3536.,	3536.,	0.454)	(3889.,	3889.,	0.385)	(4243.,	4243.,	0.330)
(4596.,	4596.,	0.287)	(4950.,	4950.,	0.252)	(5303.,	5303.,	0.224)
(5657.,	5657.,	0.200)	(6010.,	6010.,	0.180)	(6364.,	6364.,	0.163)
(6718.,	6718.,	0.148)	(7071.,	7071.,	0.135)	(7425.,	7425.,	0.124)
(7778.,	7778.,	0.115)	(8132.,	8132.,	0.106)	(8415.,	8415.,	0.100)
(462.,	191.,	32.366)	(924.,	383.,	8.107)	(1386.,	574.,	3.793)
(1848.,	765.,	2.243)	(2310.,	957.,	1.500)	(2772.,	1148.,	1.080)
(3234.,	1339.,	0.823)	(3696.,	1531.,	0.651)	(4157.,	1722.,	0.530)
(4619.,	1913.,	0.440)	(5081.,	2105.,	0.373)	(5543.,	2296.,	0.320)
(6005.,	2487.,	0.278)	(6467.,	2679.,	0.245)	(6929.,	2870.,	0.217)
(7391.,	3061.,	0.194)	(7853.,	3253.,	0.175)	(8315.,	3444.,	0.158)
(8777.,	3635.,	0.144)	(9239.,	3827.,	0.132)	(9701.,	4018.,	0.121)
(10163.,	4210.,	0.112)	(10625.,	4401.,	0.104)	(11087.,	4592.,	0.097)
(11548.,	4784.,	0.090)	(12010.,	4975.,	0.085)	(12472.,	5166.,	0.079)
(12842.,	5319.,	0.076)	(500.,	0.,	24.451)	(1500.,	0.,	2.990)
(2000.,	0.,	1.798)	(2500.,	0.,	1.215)	(3000.,	0.,	0.883)
(3500.,	0.,	0.678)	(4000.,	0.,	0.540)	(4500.,	0.,	0.442)
(5000.,	0.,	0.370)	(5500.,	0.,	0.315)	(6000.,	0.,	0.272)
(6500.,	0.,	0.239)	(7000.,	0.,	0.211)	(7500.,	0.,	0.188)
(7700.,	0.,	0.180)	(462.,	-191.,	24.054)	(924.,	-383.,	6.293)
(1386.,	-574.,	3.024)	(1848.,	-765.,	1.818)	(2310.,	-957.,	1.228)
(2772.,	-1148.,	0.893)	(3234.,	-1339.,	0.685)	(3696.,	-1531.,	0.546)
(4157.,	-1722.,	0.448)	(4619.,	-1913.,	0.375)	(5081.,	-2105.,	0.320)
(354.,	-354.,	15.505)	(707.,	-707.,	4.107)	(1061.,	-1061.,	1.958)
(1414.,	-1414.,	1.169)	(1768.,	-1768.,	0.785)	(2121.,	-2121.,	0.569)
(2475.,	-2475.,	0.435)	(2828.,	-2828.,	0.346)	(3182.,	-3182.,	0.282)
(3536.,	-3536.,	0.235)	(3677.,	-3677.,	0.220)	(191.,	-462.,	12.604)
(383.,	-924.,	3.191)	(574.,	-1386.,	1.527)	(765.,	-1848.,	0.917)
(957.,	-2310.,	0.619)	(1148.,	-2772.,	0.451)	(1339.,	-3234.,	0.346)
(1531.,	-3696.,	0.275)	(1722.,	-4157.,	0.225)	(1913.,	-4619.,	0.188)
(2105.,	-5081.,	0.160)	(2296.,	-5543.,	0.138)	(2487.,	-6005.,	0.120)
(2679.,	-6467.,	0.106)	(2870.,	-6929.,	0.094)	(3061.,	-7391.,	0.085)
(0.,	-500.,	12.526)	(0.,	-1000.,	3.727)	(0.,	-1500.,	1.858)
(0.,	-2000.,	1.128)	(0.,	-2500.,	0.764)	(0.,	-3000.,	0.556)
(0.,	-3500.,	0.426)	(0.,	-4000.,	0.339)	(0.,	-4500.,	0.277)
(0.,	-5000.,	0.231)	(0.,	-5500.,	0.196)	(0.,	-6000.,	0.169)
(0.,	-6500.,	0.148)	(0.,	-7000.,	0.130)	(0.,	-7500.,	0.116)
(0.,	-8000.,	0.104)	(0.,	-8500.,	0.094)	(0.,	-9000.,	0.085)
(-191.,	-462.,	9.765)	(-383.,	-924.,	2.354)	(-574.,	-1386.,	1.154)
(-765.,	-1848.,	0.701)	(-957.,	-2310.,	0.476)	(-1148.,	-2772.,	0.347)
(-1339.,	-3234.,	0.267)	(-1531.,	-3696.,	0.212)	(-1722.,	-4157.,	0.173)
(-1913.,	-4619.,	0.145)	(-2105.,	-5081.,	0.123)	(-2296.,	-5543.,	0.106)
(-2487.,	-6005.,	0.092)	(-2679.,	-6467.,	0.081)	(-2870.,	-6929.,	0.072)
(-3061.,	-7391.,	0.065)	(-3253.,	-7853.,	0.058)	(-3444.,	-8315.,	0.053)
(-3635.,	-8777.,	0.048)	(-3827.,	-9239.,	0.044)	(-3942.,	-9516.,	0.042)
(-354.,	-354.,	10.719)	(-1061.,	-1061.,	1.427)	(-1414.,	-1414.,	0.864)
(-1768.,	-1768.,	0.585)	(-2121.,	-2121.,	0.425)	(-2475.,	-2475.,	0.325)
(-2828.,	-2828.,	0.259)	(-3182.,	-3182.,	0.211)	(-3536.,	-3536.,	0.176)
(-3889.,	-3889.,	0.149)	(-4243.,	-4243.,	0.129)	(-4596.,	-4596.,	0.112)

(-4950.,	-4950.,	0.099)	(-5303.,	-5303.,	0.088)	(-5657.,	-5657.,	0.078)
(-5940.,	-5940.,	0.072)	(-462.,	-191.,	14.346)	(-1386.,	-574.,	1.859)
(-1848.,	-765.,	1.120)	(-2310.,	-957.,	0.757)	(-2772.,	-1148.,	0.550)
(-3234.,	-1339.,	0.421)	(-3696.,	-1531.,	0.335)	(-4157.,	-1722.,	0.274)
(-4619.,	-1913.,	0.229)	(-5081.,	-2105.,	0.195)	(-5543.,	-2296.,	0.169)
(-6005.,	-2487.,	0.147)	(-500.,	0.,	12.655)	(-1500.,	0.,	1.612)
(-2000.,	0.,	0.979)	(-2500.,	0.,	0.665)	(-3000.,	0.,	0.485)
(-3500.,	0.,	0.373)	(-4000.,	0.,	0.297)	(-4300.,	0.,	0.262)
(-462.,	191.,	11.314)	(-1386.,	574.,	1.438)	(-1848.,	765.,	0.864)
(-2310.,	957.,	0.582)	(-2772.,	1148.,	0.422)	(-3234.,	1339.,	0.323)
(-3696.,	1531.,	0.256)	(-4157.,	1722.,	0.209)	(-4619.,	1913.,	0.174)
(-354.,	354.,	6.894)	(-1061.,	1061.,	0.841)	(-1414.,	1414.,	0.503)
(-1768.,	1768.,	0.337)	(-2121.,	2121.,	0.244)	(-2475.,	2475.,	0.186)
(-2828.,	2828.,	0.147)	(-3182.,	3182.,	0.120)	(-3536.,	3536.,	0.100)
(-3889.,	3889.,	0.085)	(-4243.,	4243.,	0.073)	(-4596.,	4596.,	0.064)
(-4950.,	4950.,	0.056)	(-5303.,	5303.,	0.050)	(-5657.,	5657.,	0.045)
(-5940.,	5940.,	0.041)	(-191.,	462.,	8.368)	(-574.,	1386.,	1.028)
(-765.,	1848.,	0.636)	(-957.,	2310.,	0.437)	(-1148.,	2772.,	0.322)
(-1339.,	3234.,	0.249)	(-1531.,	3696.,	0.200)	(-1722.,	4157.,	0.164)
(-1913.,	4619.,	0.138)	(-2105.,	5081.,	0.118)	(-2296.,	5543.,	0.102)
(-2487.,	6005.,	0.089)	(-2679.,	6467.,	0.079)	(-2870.,	6929.,	0.070)
(-2947.,	7114.,	0.067)	(-2105.,	5081.,	0.118)	(-1990.,	4804.,	0.129)
(-3061.,	7391.,	0.063)	(-3444.,	8315.,	0.052)	(-3482.,	8407.,	0.051)
(1061.,	3960.,	0.466)	(209.,	5996.,	0.203)	(-1705.,	-8021.,	0.072)
(-282.,	530.,	5.122)	(6431.,	1485.,	0.249)	(8682.,	1688.,	0.160)
(9976.,	698.,	0.116)	(5936.,	-3709.,	0.232)	(14518.,	3352.,	0.068)
(-4852.,	-682.,	0.190)	(					

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8760 HOUR AVERAGE FOR HOUR ENDING 8760
DEPOSITION RATE IN MICROGRAMS/M**2/SEC

(0.,	500.,	0.207)	(0.,	1000.,	0.057)	(0.,	1500.,	0.029)
(0.,	2000.,	0.017)	(0.,	2500.,	0.012)	(0.,	3000.,	0.009)
(0.,	3500.,	0.007)	(0.,	4000.,	0.005)	(0.,	4500.,	0.004)
(0.,	5000.,	0.004)	(0.,	5500.,	0.003)	(0.,	6000.,	0.003)
(0.,	6500.,	0.002)	(0.,	7000.,	0.002)	(0.,	7500.,	0.002)
(0.,	8000.,	0.002)	(0.,	8500.,	0.001)	(0.,	9000.,	0.001)
(0.,	9500.,	0.001)	(0.,	9800.,	0.001)	(191.,	462.,	0.324)
(383.,	924.,	0.091)	(574.,	1386.,	0.046)	(765.,	1848.,	0.028)
(957.,	2310.,	0.019)	(1148.,	2772.,	0.014)	(1339.,	3234.,	0.010)
(1531.,	3696.,	0.008)	(1722.,	4157.,	0.007)	(1913.,	4619.,	0.006)
(2105.,	5081.,	0.005)	(2296.,	5543.,	0.004)	(2487.,	6005.,	0.004)
(2679.,	6467.,	0.003)	(2870.,	6929.,	0.003)	(3061.,	7391.,	0.003)
(3253.,	7853.,	0.002)	(3444.,	8315.,	0.002)	(3635.,	8777.,	0.002)
(3827.,	9239.,	0.002)	(4018.,	9701.,	0.002)	(4210.,	10163.,	0.001)
(354.,	354.,	0.443)	(707.,	707.,	0.116)	(1061.,	1061.,	0.055)
(1414.,	1414.,	0.033)	(1768.,	1768.,	0.022)	(2121.,	2121.,	0.016)
(2475.,	2475.,	0.012)	(2828.,	2828.,	0.010)	(3182.,	3182.,	0.008)
(3536.,	3536.,	0.006)	(3889.,	3889.,	0.005)	(4243.,	4243.,	0.005)
(4596.,	4596.,	0.004)	(4950.,	4950.,	0.004)	(5303.,	5303.,	0.003)
(5657.,	5657.,	0.003)	(6010.,	6010.,	0.003)	(6364.,	6364.,	0.002)
(6718.,	6718.,	0.002)	(7071.,	7071.,	0.002)	(7425.,	7425.,	0.002)
(7778.,	7778.,	0.002)	(8132.,	8132.,	0.002)	(8415.,	8415.,	0.001)
(462.,	191.,	0.452)	(924.,	383.,	0.115)	(1386.,	574.,	0.054)
(1848.,	765.,	0.032)	(2310.,	957.,	0.021)	(2772.,	1148.,	0.015)
(3234.,	1339.,	0.012)	(3696.,	1531.,	0.009)	(4157.,	1722.,	0.007)
(4619.,	1913.,	0.006)	(5081.,	2105.,	0.005)	(5543.,	2296.,	0.005)
(6005.,	2487.,	0.004)	(6467.,	2679.,	0.003)	(6929.,	2870.,	0.003)
(7391.,	3061.,	0.003)	(7853.,	3253.,	0.002)	(8315.,	3444.,	0.002)
(8777.,	3635.,	0.002)	(9239.,	3827.,	0.002)	(9701.,	4018.,	0.002)

(10163.,	4210.,	0.002)	(10625.,	4401.,	0.001)	(11087.,	4592.,	0.001)
(11548.,	4784.,	0.001)	(12010.,	4975.,	0.001)	(12472.,	5166.,	0.001)
(12842.,	5319.,	0.001)	(500.,	0.,	0.300)	(1500.,	0.,	0.036)
(2000.,	0.,	0.022)	(2500.,	0.,	0.015)	(3000.,	0.,	0.011)
(3500.,	0.,	0.008)	(4000.,	0.,	0.006)	(4500.,	0.,	0.005)
(5000.,	0.,	0.004)	(5500.,	0.,	0.004)	(6000.,	0.,	0.003)
(6500.,	0.,	0.003)	(7000.,	0.,	0.003)	(7500.,	0.,	0.002)
(7700.,	0.,	0.002)	(462.,	-191.,	0.287)	(924.,	-383.,	0.075)
(1386.,	-574.,	0.036)	(1848.,	-765.,	0.022)	(2310.,	-957.,	0.015)
(2772.,	-1148.,	0.011)	(3234.,	-1339.,	0.008)	(3696.,	-1531.,	0.007)
(4157.,	-1722.,	0.005)	(4619.,	-1913.,	0.004)	(5081.,	-2105.,	0.004)
(354.,	-354.,	0.179)	(707.,	-707.,	0.047)	(1061.,	-1061.,	0.022)
(1414.,	-1414.,	0.013)	(1768.,	-1768.,	0.009)	(2121.,	-2121.,	0.006)
(2475.,	-2475.,	0.005)	(2828.,	-2828.,	0.004)	(3182.,	-3182.,	0.003)
(3536.,	-3536.,	0.003)	(3677.,	-3677.,	0.002)	(191.,	-462.,	0.149)
(383.,	-924.,	0.038)	(574.,	-1386.,	0.018)	(765.,	-1848.,	0.011)
(957.,	-2310.,	0.007)	(1148.,	-2772.,	0.005)	(1339.,	-3234.,	0.004)
(1531.,	-3696.,	0.003)	(1722.,	-4157.,	0.003)	(1913.,	-4619.,	0.002)
(2105.,	-5081.,	0.002)	(2296.,	-5543.,	0.002)	(2487.,	-6005.,	0.001)
(2679.,	-6467.,	0.001)	(2870.,	-6929.,	0.001)	(3061.,	-7391.,	0.001)
(0.,	-500.,	0.149)	(0.,	-1000.,	0.044)	(0.,	-1500.,	0.021)
(0.,	-2000.,	0.013)	(0.,	-2500.,	0.009)	(0.,	-3000.,	0.006)
(0.,	-3500.,	0.005)	(0.,	-4000.,	0.004)	(0.,	-4500.,	0.003)
(0.,	-5000.,	0.003)	(0.,	-5500.,	0.002)	(0.,	-6000.,	0.002)
(0.,	-6500.,	0.002)	(0.,	-7000.,	0.001)	(0.,	-7500.,	0.001)
(0.,	-8000.,	0.001)	(0.,	-8500.,	0.001)	(0.,	-9000.,	0.001)
(-191.,	-462.,	0.118)	(-383.,	-924.,	0.029)	(-574.,	-1386.,	0.014)
(-765.,	-1848.,	0.008)	(-957.,	-2310.,	0.006)	(-1148.,	-2772.,	0.004)
(-1339.,	-3234.,	0.003)	(-1531.,	-3696.,	0.003)	(-1722.,	-4157.,	0.002)
(-1913.,	-4619.,	0.002)	(-2105.,	-5081.,	0.001)	(-2296.,	-5543.,	0.001)
(-2487.,	-6005.,	0.001)	(-2679.,	-6467.,	0.001)	(-2870.,	-6929.,	0.001)
(-3061.,	-7391.,	0.001)	(-3253.,	-7853.,	0.001)	(-3444.,	-8315.,	0.001)
(-3635.,	-8777.,	0.001)	(-3827.,	-9239.,	0.001)	(-3942.,	-9516.,	0.001)
(-354.,	-354.,	0.132)	(-1061.,	-1061.,	0.018)	(-1414.,	-1414.,	0.011)
(-1768.,	-1768.,	0.007)	(-2121.,	-2121.,	0.005)	(-2475.,	-2475.,	0.004)
(-2828.,	-2828.,	0.003)	(-3182.,	-3182.,	0.003)	(-3536.,	-3536.,	0.002)
(-3889.,	-3889.,	0.002)	(-4243.,	-4243.,	0.002)	(-4596.,	-4596.,	0.001)
(-4950.,	-4950.,	0.001)	(-5303.,	-5303.,	0.001)	(-5657.,	-5657.,	0.001)
(-5940.,	-5940.,	0.001)	(-462.,	-191.,	0.181)	(-1386.,	-574.,	0.024)
(-1848.,	-765.,	0.014)	(-2310.,	-957.,	0.010)	(-2772.,	-1148.,	0.007)
(-3234.,	-1339.,	0.005)	(-3696.,	-1531.,	0.004)	(-4157.,	-1722.,	0.003)
(-4619.,	-1913.,	0.003)	(-5081.,	-2105.,	0.002)	(-5543.,	-2296.,	0.002)
(-6005.,	-2487.,	0.002)	(-500.,	0.,	0.155)	(-1500.,	0.,	0.019)
(-2000.,	0.,	0.012)	(-2500.,	0.,	0.008)	(-3000.,	0.,	0.006)
(-3500.,	0.,	0.004)	(-4000.,	0.,	0.004)	(-4300.,	0.,	0.003)
(-462.,	191.,	0.140)	(-1386.,	574.,	0.018)	(-1848.,	765.,	0.011)
(-2310.,	957.,	0.007)	(-2772.,	1148.,	0.005)	(-3234.,	1339.,	0.004)
(-3696.,	1531.,	0.003)	(-4157.,	1722.,	0.003)	(-4619.,	1913.,	0.002)
(-354.,	354.,	0.089)	(-1061.,	1061.,	0.011)	(-1414.,	1414.,	0.006)
(-1768.,	1768.,	0.004)	(-2121.,	2121.,	0.003)	(-2475.,	2475.,	0.002)
(-2828.,	2828.,	0.002)	(-3182.,	3182.,	0.002)	(-3536.,	3536.,	0.001)
(-3889.,	3889.,	0.001)	(-4243.,	4243.,	0.001)	(-4596.,	4596.,	0.001)
(-4950.,	4950.,	0.001)	(-5303.,	5303.,	0.001)	(-5657.,	5657.,	0.001)
(-5940.,	5940.,	0.001)	(-191.,	462.,	0.111)	(-574.,	1386.,	0.013)
(-765.,	1848.,	0.008)	(-957.,	2310.,	0.006)	(-1148.,	2772.,	0.004)
(-1339.,	3234.,	0.003)	(-1531.,	3696.,	0.003)	(-1722.,	4157.,	0.002)
(-1913.,	4619.,	0.002)	(-2105.,	5081.,	0.002)	(-2296.,	5543.,	0.001)
(-2487.,	6005.,	0.001)	(-2679.,	6467.,	0.001)	(-2870.,	6929.,	0.001)
(-2947.,	7114.,	0.001)	(-2105.,	5081.,	0.002)	(-1990.,	4804.,	0.002)
(-3061.,	7391.,	0.001)	(-3444.,	8315.,	0.001)	(-3482.,	8407.,	0.001)

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(  1061.,   3960.,     0.007) (   209.,   5996.,     0.003) ( -1705.,  -8021.,     0.001)
(  -282.,    530.,     0.066) (  6431.,   1485.,     0.003) (  8682.,   1688.,     0.002)
(  9976.,    698.,     0.001) (  5936.,  -3709.,     0.003) ( 14518.,   3352.,     0.001)
( -4852.,   -682.,     0.002) (
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TOP 50 TABLE FOR 1 HOUR AVERAGES

RANK	RECEPTOR	X-COORDINATE	Y-COORDINATE	ENDING HOUR	CONCENTRATION	DEPOSITION
1	203	-462.0	-191.0	5662	1414.5016	17.0441
2	110	462.0	-191.0	998	1048.5631	9.6744
3	110	462.0	-191.0	1206	1047.9813	9.6691
4	67	462.0	191.0	8499	1043.7495	9.9932
5	223	-462.0	191.0	1153	1043.1744	9.9877
6	223	-462.0	191.0	7499	1037.6034	9.8424
7	67	462.0	191.0	1383	1019.2164	9.5787
8	67	462.0	191.0	724	1018.2720	8.1698
9	110	462.0	-191.0	1187	1014.8681	10.1829
10	223	-462.0	191.0	360	1013.5959	10.2664
11	67	462.0	191.0	424	1013.2097	9.9769
12	67	462.0	191.0	7421	1013.2097	9.9769
13	223	-462.0	191.0	2983	1010.5659	12.1178
14	203	-462.0	-191.0	2952	1006.4012	11.7376
15	67	462.0	191.0	1358	1002.1191	9.2459
16	203	-462.0	-191.0	2948	1000.6441	12.1096
17	67	462.0	191.0	1548	1000.3024	11.1338
18	203	-462.0	-191.0	2936	998.9228	11.2233
19	223	-462.0	191.0	1687	998.6811	9.4732
20	223	-462.0	191.0	3087	997.7595	12.9783
21	110	462.0	-191.0	2264	994.7372	11.4941
22	223	-462.0	191.0	7298	994.7372	11.4941
23	223	-462.0	191.0	2943	988.8976	12.8631
24	203	-462.0	-191.0	7679	987.7012	10.1947
25	223	-462.0	191.0	3081	983.7049	11.9046
26	203	-462.0	-191.0	3762	978.4797	13.5250
27	203	-462.0	-191.0	871	977.6591	10.2834
28	203	-462.0	-191.0	3304	976.5228	12.3667
29	110	462.0	-191.0	6882	973.1557	11.1404
30	223	-462.0	191.0	1925	971.7846	11.2289
31	110	462.0	-191.0	270	969.9636	8.9493
32	223	-462.0	191.0	7694	968.5214	10.8817
33	67	462.0	191.0	2070	965.4976	9.2440
34	110	462.0	-191.0	566	964.4974	8.3542
35	223	-462.0	191.0	8469	959.4556	8.6919
36	67	462.0	191.0	641	959.1603	9.5494
37	67	462.0	191.0	1378	957.8948	9.0827
38	110	462.0	-191.0	393	957.0897	8.9879
39	203	-462.0	-191.0	1727	956.2701	8.9045
40	95	500.0	0.0	728	955.5472	7.6048
41	223	-462.0	191.0	3082	953.4484	11.8585
42	110	462.0	-191.0	7882	952.6565	8.2961
43	95	500.0	0.0	720	952.1549	7.8313
44	110	462.0	-191.0	1306	952.1253	10.0582
45	223	-462.0	191.0	1680	951.6041	10.0527
46	203	-462.0	-191.0	8057	951.2606	9.5644
47	110	462.0	-191.0	1981	950.3948	10.1400

48	67	462.0	191.0	8408	950.1122	9.6475
49	67	462.0	191.0	616	948.8240	8.5766
50	223	-462.0	191.0	2447	948.4395	10.3598

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HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

RECEPTOR	X-COORDINATE	Y-COORDINATE	HIGHEST VALUE	ENDING HOUR	DEPOSITION	SECOND HIGH	ENDING HOUR	DEPOSTION
1	0.0	500.0	785.9926	2.	5.9375	600.8240	7411.	5.8064
2	0.0	1000.0	292.3861	8485.	2.8791	286.0093	1412.	3.2741
3	0.0	1500.0	198.0097	8485.	1.9498	194.4262	1412.	2.2257
4	0.0	2000.0	141.4359	8485.	1.3927	139.3309	1412.	1.5950
5	0.0	2500.0	105.4798	8485.	1.0386	104.1213	1412.	1.1919
6	0.0	3000.0	81.6665	8485.	0.8042	80.7071	1412.	0.9239
7	0.0	3500.0	65.4806	8485.	0.6448	64.7401	1412.	0.7411
8	0.0	4000.0	53.7985	8485.	0.5297	53.1954	1412.	0.6090
9	0.0	4500.0	45.0811	8485.	0.4439	44.5716	1412.	0.5102
10	0.0	5000.0	38.3987	8485.	0.3781	37.9565	1412.	0.4345
11	0.0	5500.0	33.1581	8485.	0.3265	32.7666	1412.	0.3751
12	0.0	6000.0	28.9672	8485.	0.2852	28.8499	6044.	0.4443
13	0.0	6500.0	26.6980	6044.	0.4111	25.5591	8485.	0.2517
14	0.0	7000.0	24.9370	6044.	0.3840	22.7471	8485.	0.2240
15	0.0	7500.0	23.4593	6044.	0.3613	20.6026	6046.	0.3514
16	0.0	8000.0	22.1924	6044.	0.3418	19.4859	6046.	0.3324
17	0.0	8500.0	21.0866	6044.	0.3247	18.5114	6046.	0.3157
18	0.0	9000.0	20.1073	6044.	0.3096	17.6485	6046.	0.3010
19	0.0	9500.0	19.2298	6044.	0.2961	16.8758	6046.	0.2878
20	0.0	9800.0	18.7446	6044.	0.2887	16.4485	6046.	0.2805
21	191.0	462.0	820.2772	3963.	9.5271	619.5647	13.	5.6127
22	383.0	924.0	314.8911	298.	2.8015	313.0527	8386.	2.6414
23	574.0	1386.0	211.1851	298.	1.8788	207.7396	8159.	2.1241
24	765.0	1848.0	149.6967	298.	1.3318	146.7902	8159.	1.5009
25	957.0	2310.0	111.2653	298.	0.9899	108.7006	8159.	1.1114
26	1148.0	2772.0	86.0091	298.	0.7652	83.8339	8159.	0.8572
27	1339.0	3234.0	68.9326	298.	0.6133	67.0524	8159.	0.6856
28	1531.0	3696.0	56.6584	298.	0.5041	54.9766	8159.	0.5621
29	1722.0	4157.0	47.5213	298.	0.4228	46.0294	8159.	0.4706
30	1913.0	4619.0	40.5015	298.	0.3603	39.1785	8159.	0.[illegible]6
31	2105.0	5081.0	35.0091	298.	0.3115	33.8044	8159.	([illegible]3
32	2296.0	5543.0	30.6076	298.	0.2723	29.5226	8159.	0.[illegible]9
33	2487.0	6005.0	27.0280	298.	0.2405	26.0796	6047.	0.4138
34	2679.0	6467.0	24.3584	6047.	0.3865	24.0782	298.	0.2142
35	2870.0	6929.0	22.9099	6047.	0.3635	21.6083	298.	0.1922
36	3061.0	7391.0	21.6687	6047.	0.3438	19.5204	298.	0.1737
37	3253.0	7853.0	20.5899	6047.	0.3267	17.7407	298.	0.1578
38	3444.0	8315.0	19.6313	6047.	0.3115	16.2049	298.	0.1442
39	3635.0	8777.0	18.7731	6047.	0.2979	14.8716	298.	0.1323
40	3827.0	9239.0	17.9998	6047.	0.2856	13.7089	298.	0.1220
41	4018.0	9701.0	17.2805	6047.	0.2742	12.7005	298.	0.1130
42	4210.0	10163.0	16.6240	6047.	0.2638	11.8091	298.	0.1051
43	354.0	354.0	809.0028	301.	7.3289	808.9251	300.	7.3282
44	707.0	707.0	374.8272	1132.	3.5227	372.7959	7590.	3.6366
45	1061.0	1061.0	230.5389	1132.	2.1666	229.1167	7590.	2.2350
46	1414.0	1414.0	156.7185	1132.	1.4729	155.6551	7590.	1.5184
47	1768.0	1768.0	113.6180	1132.	1.0678	112.7885	7590.	1.1002
48	2121.0	2121.0	86.5534	1132.	0.8134	85.8827	7590.	0.8378

49	2475.0	2475.0	68.6378	1132.	0.6451	68.0758	7590.	0.6641
50	2828.0	2828.0	56.0109	1132.	0.5264	55.5298	7590.	0.5417
51	3182.0	3182.0	46.6873	1132.	0.4388	46.3021	114.	0.4433
52	3536.0	3536.0	39.6171	1132.	0.3723	39.3077	114.	0.3763
53	3889.0	3889.0	34.1281	1132.	0.3207	33.8685	114.	0.3243
54	4243.0	4243.0	29.7465	1132.	0.2796	29.5304	114.	0.2827
55	4596.0	4596.0	26.2118	1132.	0.2463	26.0255	114.	0.2492
56	4950.0	4950.0	23.2968	1132.	0.2189	23.1339	114.	0.2215
57	5303.0	5303.0	20.8744	1132.	0.1962	20.7299	114.	0.1985
58	5657.0	5657.0	18.8260	1132.	0.1769	18.6966	114.	0.1790
59	6010.0	6010.0	17.0859	1132.	0.1606	16.9689	114.	0.1625
60	6364.0	6364.0	16.0678	370.	0.1989	15.5857	1132.	0.1465
61	6718.0	6718.0	15.3024	370.	0.1895	14.2831	1132.	0.1342
62	7071.0	7071.0	14.6148	370.	0.1809	13.1526	1132.	0.1236
63	7425.0	7425.0	13.9834	370.	0.1731	12.1691	1132.	0.1144
64	7778.0	7778.0	13.4086	370.	0.1660	11.3041	1132.	0.1062
65	8132.0	8132.0	12.8803	370.	0.1595	10.5318	1132.	0.0990
66	8415.0	8415.0	12.4884	370.	0.1546	9.9734	1132.	0.0937
67	462.0	191.0	1043.7495	8499.	9.9932	1019.2164	1383.	9.5787
68	924.0	383.0	434.5343	8499.	4.1604	404.3876	1383.	3.8005
69	1386.0	574.0	252.4477	8499.	2.4170	232.1974	641.	2.3118
70	1848.0	765.0	167.0266	8499.	1.5992	153.6851	641.	1.5301
71	2310.0	957.0	119.3855	8499.	1.1430	109.8835	641.	1.0940
72	2772.0	1148.0	90.2164	8499.	0.8638	83.0586	641.	0.8269
73	3234.0	1339.0	71.2190	8499.	0.6819	65.5859	641.	0.6530
74	3696.0	1531.0	57.8877	8499.	0.5542	53.3222	641.	0.5309
75	4157.0	1722.0	48.1786	8499.	0.4613	44.3890	641.	0.4419
76	4619.0	1913.0	40.8337	8499.	0.3910	37.6298	641.	0.3746
77	5081.0	2105.0	35.1183	8499.	0.3362	32.3693	641.	0.3223
78	5543.0	2296.0	30.5950	8499.	0.2929	28.2054	641.	0.2808
79	6005.0	2487.0	26.9419	8499.	0.2580	24.8421	641.	0.2473
80	6467.0	2679.0	23.9333	8499.	0.2291	22.0718	641.	0.2197
81	6929.0	2870.0	21.4371	8499.	0.2052	19.7730	641.	0.1969
82	7391.0	3061.0	19.3340	8499.	0.1851	17.8359	641.	0.1776
83	7853.0	3253.0	17.5353	8499.	0.1679	16.1791	641.	0.1611
84	8315.0	3444.0	15.9976	8499.	0.1532	14.7624	641.	0.1470
85	8777.0	3635.0	14.6652	8499.	0.1404	13.5349	641.	0.1348
86	9239.0	3827.0	13.5004	8499.	0.1293	12.4991	3009.	0.1401
87	9701.0	4018.0	12.4929	8499.	0.1196	11.6851	3009.	0.1310
88	10163.0	4210.0	11.6019	8499.	0.1111	10.9785	3009.	0.1231
89	10625.0	4401.0	10.8115	8499.	0.1035	10.3581	3009.	0.1161
90	11087.0	4592.0	10.1042	8499.	0.0967	9.8118	3009.	0.1100
91	11548.0	4784.0	9.4669	8499.	0.0906	9.3308	3009.	0.1046
92	12010.0	4975.0	8.9001	3009.	0.0998	8.8933	8499.	0.0851
93	12472.0	5166.0	8.5149	3009.	0.0955	8.3735	8499.	0.0802
94	12842.0	5319.0	8.2347	3009.	0.0923	7.9914	8499.	0.0765
95	500.0	0.0	955.5472	728.	7.6048	952.1549	720.	7.8313
96	1500.0	0.0	257.1400	391.	2.3508	247.7632	6674.	2.5333
97	2000.0	0.0	170.5009	391.	1.5588	163.2666	6674.	1.6693
98	2500.0	0.0	122.1009	391.	1.1163	116.2855	6674.	1.1890
99	3000.0	0.0	92.6838	391.	0.8473	87.5484	6674.	0.8952
100	3500.0	0.0	73.9762	391.	0.6763	68.8998	6674.	0.7045
101	4000.0	0.0	61.3331	391.	0.5607	55.8926	6674.	0.5715
102	4500.0	0.0	52.4619	391.	0.4796	46.4087	6674.	0.4745
103	5000.0	0.0	46.0303	391.	0.4208	40.6338	378.	0.4046
104	5500.0	0.0	41.2152	391.	0.3768	36.3543	378.	0.3619
105	6000.0	0.0	37.4957	391.	0.3428	33.0510	378.	0.3291
106	6500.0	0.0	34.5359	391.	0.3157	30.4170	378.	0.3028
107	7000.0	0.0	32.1157	391.	0.2936	28.2597	378.	0.2814
108	7500.0	0.0	30.0888	391.	0.2751	26.4625	378.	0.2635

109	7700.0	0.0	29.3649	391.	0.2685	25.8208	378.	0.2571
110	462.0	-191.0	1048.5631	998.	9.6744	1047.9813	1206.	9.6691
111	924.0	-383.0	437.5737	1206.	4.0372	436.8490	998.	4.0305
112	1386.0	-574.0	254.3508	1206.	2.3467	253.9782	998.	2.3[illegible]
113	1848.0	-765.0	168.2876	1206.	1.5527	168.1412	998.	1.[illegible]
114	2310.0	-957.0	120.4045	1206.	1.1109	120.2431	998.	1.1[illegible]
115	2772.0	-1148.0	90.9704	1206.	0.8393	90.9047	998.	0.8387
116	3234.0	-1339.0	71.8104	1206.	0.6626	71.7932	998.	0.6624
117	3696.0	-1531.0	58.4159	1206.	0.5390	58.3776	998.	0.5386
118	4157.0	-1722.0	48.6326	1206.	0.4487	48.6040	998.	0.4484
119	4619.0	-1913.0	41.2187	1206.	0.3803	41.2082	998.	0.3802
120	5081.0	-2105.0	35.4731	1206.	0.3273	35.4515	998.	0.3271
121	354.0	-354.0	813.2571	731.	6.7456	812.6289	8432.	6.7404
122	707.0	-707.0	376.2929	281.	3.4401	371.2186	8010.	3.7247
123	1061.0	-1061.0	231.5659	281.	2.1170	228.0134	8010.	2.2878
124	1414.0	-1414.0	157.4870	281.	1.4398	154.9554	1203.	1.4429
125	1768.0	-1768.0	114.2178	281.	1.0442	112.7273	1203.	1.0497
126	2121.0	-2121.0	87.0386	281.	0.7957	86.0826	1203.	0.8016
127	2475.0	-2475.0	69.0446	281.	0.6312	68.3805	1203.	0.6367
128	2828.0	-2828.0	56.3593	281.	0.5152	55.8680	1203.	0.5202
129	3182.0	-3182.0	46.9904	281.	0.4296	46.6104	1203.	0.4340
130	3536.0	-3536.0	40.3282	6252.	0.5061	39.8842	281.	0.3646
131	3677.0	-3677.0	38.3988	6252.	0.4819	37.5209	281.	0.3430
132	191.0	-462.0	616.0974	1472.	5.7369	602.7131	6994.	6.3396
133	383.0	-924.0	318.7917	564.	2.6899	318.0686	568.	2.7309
134	574.0	-1386.0	214.2987	564.	1.8082	213.7451	568.	1.8352
135	765.0	-1848.0	151.8947	564.	1.2816	151.4631	568.	1.3004
136	957.0	-2310.0	112.7728	564.	0.9515	112.4279	568.	0.9653
137	1148.0	-2772.0	87.1716	564.	0.7355	86.8885	568.	0.7460
138	1339.0	-3234.0	69.8770	564.	0.5896	69.6372	568.	0.5979
139	1531.0	-3696.0	57.4092	564.	0.4844	57.2024	568.	0.4911
140	1722.0	-4157.0	48.1559	564.	0.4063	47.9749	568.	0.4119
141	1913.0	-4619.0	41.0597	564.	0.3464	40.8994	568.	0.3512
142	2105.0	-5081.0	35.4852	564.	0.2994	35.3418	568.	0.3034
143	2296.0	-5543.0	31.0379	564.	0.2619	30.9085	568.	0.2654
144	2487.0	-6005.0	27.4201	564.	0.2314	27.3025	568.	0.2344
145	2679.0	-6467.0	24.4256	564.	0.2061	24.3177	568.	0.2088
146	2870.0	-6929.0	21.9300	564.	0.1850	21.8304	568.	0.1874
147	3061.0	-7391.0	19.8203	564.	0.1672	19.7272	568.	0.1694
148	0.0	-500.0	738.3401	5165.	8.3206	736.3033	6069.	9.2160
149	0.0	-1000.0	407.7703	5165.	4.5953	366.8416	6069.	4.5916
150	0.0	-1500.0	290.9490	5165.	3.2788	203.9761	6069.	2[illegible]
151	0.0	-2000.0	218.0005	5165.	2.4567	145.3064	56.	1[illegible]
152	0.0	-2500.0	169.2325	5165.	1.9071	108.5881	56.	0.[illegible]
153	0.0	-3000.0	134.5167	5165.	1.5159	84.2234	56.	0.7107
154	0.0	-3500.0	109.2566	5165.	1.2313	67.6493	56.	0.5708
155	0.0	-4000.0	90.4879	5165.	1.0197	55.6696	56.	0.4697
156	0.0	-4500.0	76.5620	5165.	0.8628	46.7180	56.	0.3942
157	0.0	-5000.0	65.6884	5165.	0.7403	39.8476	56.	0.3362
158	0.0	-5500.0	57.0256	5165.	0.6426	35.2078	5916.	0.4702
159	0.0	-6000.0	50.0135	5165.	0.5636	32.1755	5916.	0.4297
160	0.0	-6500.0	44.2564	5165.	0.4987	29.7594	5916.	0.3974
161	0.0	-7000.0	39.4699	5165.	0.4448	27.7803	5916.	0.371[illegible]
162	0.0	-7500.0	35.4455	5165.	0.3994	26.1186	5916.	0.348[illegible]
163	0.0	-8000.0	32.0277	5165.	0.3609	24.6935	5916.	0.329[illegible]
164	0.0	-8500.0	29.0990	5165.	0.3279	23.4497	5916.	0.3132
165	0.0	-9000.0	26.5689	5165.	0.2994	22.3485	5916.	0.2985
166	-191.0	-462.0	617.4992	7440.	5.7500	613.0800	1321.	5.6565
167	-383.0	-924.0	316.5582	1327.	2.8163	314.5553	137.	2.9290
168	-574.0	-1386.0	212.5892	1327.	1.8913	211.0581	137.	1.9653

169	-765.0	-1848.0	150.5624	1327.	1.3395	149.3702	137.	1.3909
170	-957.0	-2310.0	111.7086	1327.	0.9938	110.8927	1331.	1.0046
171	-1148.0	-2772.0	86.2984	1327.	0.7678	85.7034	1331.	0.7764
172	-1339.0	-3234.0	69.1373	1327.	0.6151	68.6736	1331.	0.6221
173	-1531.0	-3696.0	56.7715	1327.	0.5051	56.4351	1331.	0.5113
174	-1722.0	-4157.0	47.5979	1327.	0.4235	47.3260	1331.	0.4287
175	-1913.0	-4619.0	40.5657	1327.	0.3609	40.3286	1331.	0.3653
176	-2105.0	-5081.0	35.0435	1327.	0.3118	34.8545	1331.	0.3158
177	-2296.0	-5543.0	30.6394	1327.	0.2726	30.4682	1331.	0.2760
178	-2487.0	-6005.0	27.0579	1327.	0.2407	26.9013	1331.	0.2437
179	-2679.0	-6467.0	24.0940	1327.	0.2144	23.9623	1331.	0.217
180	-2870.0	-6929.0	21.6246	1327.	0.1924	21.5017	1331.	0.194
181	-3061.0	-7391.0	19.5370	1327.	0.1738	19.4219	1331.	0.175
182	-3253.0	-7853.0	17.7494	1327.	0.1579	17.6492	1331.	0.159
183	-3444.0	-8315.0	16.2146	1327.	0.1443	16.1197	1331.	0.146
184	-3635.0	-8777.0	14.8821	1327.	0.1324	14.7919	1331.	0.134
185	-3827.0	-9239.0	13.7144	1327.	0.1220	13.6341	1331.	0.123
186	-3942.0	-9516.0	13.0934	1327.	0.1165	13.0176	1331.	0.117
187	-354.0	-354.0	812.3538	1277.	7.0990	797.4262	146.	7.290
188	-1061.0	-1061.0	223.2671	876.	2.2828	222.9758	146.	2.038
189	-1414.0	-1414.0	152.2771	876.	1.5570	149.1968	146.	1.364
190	-1768.0	-1768.0	110.6331	876.	1.1312	106.9790	146.	0.978
191	-2121.0	-2121.0	84.3864	876.	0.8628	81.7686	148.	0.782
192	-2475.0	-2475.0	66.9575	876.	0.6846	65.0454	148.	0.622
193	-2828.0	-2828.0	54.6492	876.	0.5588	53.2107	148.	0.509
194	-3182.0	-3182.0	45.5503	876.	0.4657	44.4488	148.	0.425
195	-3536.0	-3536.0	38.6457	876.	0.3951	37.7844	148.	0.361
196	-3889.0	-3889.0	33.2801	876.	0.3403	32.5995	148.	0.312
197	-4243.0	-4243.0	29.0046	876.	0.2966	28.9630	3312.	0.395
198	-4596.0	-4596.0	26.7231	3312.	0.3646	25.5554	876.	0.261
199	-4950.0	-4950.0	24.8876	3312.	0.3396	22.7160	876.	0.232
200	-5303.0	-5303.0	23.3547	3312.	0.3187	20.3633	876.	0.208
201	-5657.0	-5657.0	22.0400	3312.	0.3007	18.3827	876.	0.188
202	-5940.0	-5940.0	21.1136	3312.	0.2881	17.0208	876.	0.174
203	-462.0	-191.0	1414.5016	5662.	17.0441	1006.4012	2952.	11.737
204	-1386.0	-574.0	381.6245	5662.	4.5984	235.1331	2952.	2.742
205	-1848.0	-765.0	254.8012	5662.	3.0702	153.6703	2952.	1.792
206	-2310.0	-957.0	183.4431	5662.	2.2104	109.0429	2952.	1.271
207	-2772.0	-1148.0	139.2246	5662.	1.6776	81.7584	2952.	0.953
208	-3234.0	-1339.0	109.5781	5662.	1.3204	64.1116	2952.	0.747
209	-3696.0	-1531.0	88.5596	5662.	1.0671	52.0231	2410.	0.577
210	-4157.0	-1722.0	73.6379	5662.	0.8873	43.2575	2410.	0.480
211	-4619.0	-1913.0	62.3618	5662.	0.7514	36.6214	2410.	0.406
212	-5081.0	-2105.0	53.4855	5662.	0.6445	32.5862	3310.	0.426
213	-5543.0	-2296.0	46.5137	5662.	0.5605	29.6176	3310.	0.387
214	-6005.0	-2487.0	40.8725	5662.	0.4925	27.2626	3310.	0.357
215	-500.0	0.0	939.5303	226.	8.6685	937.3870	239.	8.809
216	-1500.0	0.0	248.5833	2193.	2.4942	246.6335	2954.	2.849
217	-2000.0	0.0	163.8611	2193.	1.6441	162.8398	2954.	1.881
218	-2500.0	0.0	116.7411	2193.	1.1713	116.0800	2954.	1.341
219	-3000.0	0.0	87.9125	2193.	0.8821	87.4219	2954.	1.010
220	-3500.0	0.0	69.2026	2193.	0.6944	68.7960	2954.	0.794
221	-4000.0	0.0	56.1503	2193.	0.5634	55.7964	2954.	0.644
222	-4300.0	0.0	50.1050	2193.	0.5027	49.7750	2954.	0.575
223	-462.0	191.0	1043.1744	1153.	9.9877	1037.6034	7499.	9.842
224	-1386.0	574.0	252.8190	1153.	2.4206	242.9040	7499.	2.304
225	-1848.0	765.0	167.1724	1153.	1.6006	159.6841	2983.	1.914
226	-2310.0	957.0	119.5460	1153.	1.1446	113.7958	2983.	1.364
227	-2772.0	1148.0	90.2818	1153.	0.8644	85.6797	2983.	1.027
228	-3234.0	1339.0	71.2362	1153.	0.6820	67.4062	2983.	0.808

229	-3696.0	1531.0	57.9258	1153.	0.5546	54.6636	2983.	0.6555
230	-4157.0	1722.0	48.2070	1153.	0.4616	45.3797	2983.	0.5442
231	-4619.0	1913.0	40.8442	1153.	0.3911	38.3604	2983.	0.4600
232	-354.0	354.0	800.9283	7915.	7.5272	800.9283	8463.	7.5272
233	-1061.0	1061.0	222.9290	7709.	2.5283	221.3115	1396.	2
234	-1414.0	1414.0	151.0383	7709.	1.7129	149.0119	2031.	1.
235	-1768.0	1768.0	109.1935	7709.	1.2384	108.0371	2031.	1.3005
236	-2121.0	2121.0	82.9804	7709.	0.9411	82.2454	2031.	1.0509
237	-2475.0	2475.0	65.6476	7709.	0.7445	65.1248	2031.	0.8322
238	-2828.0	2828.0	53.4541	7709.	0.6062	53.0527	2031.	0.6779
239	-3182.0	3182.0	44.4668	7709.	0.5043	44.1460	2031.	0.5641
240	-3536.0	3536.0	37.6626	7709.	0.4271	37.3931	2031.	0.4778
241	-3889.0	3889.0	32.3977	6014.	0.5328	32.3881	7709.	0.3673
242	-4243.0	4243.0	29.5906	6014.	0.4866	28.1837	7709.	0.3196
243	-4596.0	4596.0	27.3744	6014.	0.4502	24.7964	7709.	0.2812
244	-4950.0	4950.0	25.5631	6014.	0.4204	22.0065	7709.	0.2496
245	-5303.0	5303.0	24.0523	6014.	0.3955	19.6907	7709.	0.2233
246	-5657.0	5657.0	22.7567	6014.	0.3742	17.7348	7709.	0.2011
247	-5940.0	5940.0	21.8430	6014.	0.3592	16.3840	7709.	0.1858
248	-191.0	462.0	881.3931	2.	6.6581	603.7068	1166.	6.6566
249	-574.0	1386.0	207.2637	7921.	1.9479	198.6354	7156.	2.4705
250	-765.0	1848.0	144.8630	7921.	1.3614	139.9538	7156.	1.7407
251	-957.0	2310.0	106.3709	7921.	0.9997	103.4996	7156.	1.2873
252	-1148.0	2772.0	81.6102	7921.	0.7670	79.6544	7156.	0.9907
253	-1339.0	3234.0	65.0353	7921.	0.6112	63.5642	7156.	0.7906
254	-1531.0	3696.0	53.1386	7921.	0.4994	52.0397	7156.	0.6472
255	-1722.0	4157.0	44.3864	7921.	0.4171	43.4895	7156.	0.5409
256	-1913.0	4619.0	37.7184	7921.	0.3545	36.9406	7156.	0.4594
257	-2105.0	5081.0	32.4750	7921.	0.3052	31.8306	7156.	0.3959
258	-2296.0	5543.0	28.3272	7921.	0.2662	27.7464	7156.	0.3451
259	-2487.0	6005.0	24.9652	7921.	0.2346	24.4329	7156.	0.3039
260	-2679.0	6467.0	22.1752	7921.	0.2084	21.7085	7156.	0.2700
261	-2870.0	6929.0	19.8686	7921.	0.1867	19.4324	7156.	0.2417
262	-2947.0	7114.0	19.0426	7921.	0.1790	18.9087	6012.	0.3489
263	-2105.0	5081.0	32.4750	7921.	0.3052	31.8306	7156.	0.3959
264	-1990.0	4804.0	35.4618	7921.	0.3333	34.7484	7156.	0.4322
265	-3061.0	7391.0	18.2992	6012.	0.3376	17.9197	7921.	0.1684
266	-3444.0	8315.0	16.5533	6012.	0.3054	14.8228	7921.	0.1393
267	-3482.0	8407.0	16.4025	6012.	0.3026	14.5630	7921.	0.1369
268	1061.0	3960.0	52.9965	1219.	0.5318	52.1109	1140.	0.4989
269	209.0	5996.0	28.1073	7733.	0.3401	27.4208	7169.	0.3567
270	-1705.0	-8021.0	25.2135	5166.	0.3280	22.0879	5929.	0.2747
271	-282.0	530.0	552.6987	7921.	5.1943	551.3834	1397.	
272	6431.0	1485.0	30.2800	401.	0.2844	26.6256	420.	
273	8682.0	1688.0	23.0202	401.	0.2162	21.7463	8329.	0.2549
274	9976.0	698.0	18.2635	388.	0.1783	16.2809	6064.	0.267
275	5936.0	-3709.0	31.4982	1195.	0.3073	29.3568	2888.	0.332
276	14518.0	3352.0	14.4743	401.	0.1359	12.2718	6063.	0.215
277	-4852.0	-682.0	41.7645	170.	0.3784	41.0591	7686.	0.396

1

TOP 50 TABLE FOR 8 HOUR AVERAGES

RANK	RECEPTOR	X-COORDINATE	Y-COORDINATE	ENDING HOUR	CONCENTRATION	DEPOSITION
1	215	-500.0	0.0	240	686.2486	6.9464
2	110	462.0	-191.0	1984	684.4401	8.1006

APPENDIX D-3

AMBIENT CONCENTRATION CALCULATION WORKSHEETS

FDM
WIND EROSION

CLIENT	JOB NUMBER
NSWC-Crane	

SUBJECT: calculations of contaminant specific air concentrations

BASED ON	DRAWING NUMBER
WIND EROSION MODELING Results	

BY	CHECKED BY	APPROVED BY	DATE
Wagner	J. Fucca		7-24-97

The computation of contaminant specific air concentration at selected receptors resulting from wind erosion was conducted using a three step process.

Step 1 Obtain air dispersion factors from Fugitive Dust Modeling (FDM) for 10μ & 23μ size particles.

The air dispersion factors are defined as the dust concentration at selected distances from a wind erodible source of emissions. The resulting air dispersion factors are listed in EXCEL WORKBOOKS "CRAN10.XLS & CRANE23.XLS". More specifically, each averaging period (i.e. 1-hour, 8 hour, 24-hour, quarterly, and annual) has an associated spreadsheet which contains air dispersion factors for each year of available meteorology (i.e. 1987, 1988, 1989, 1990, 1991) for each receptor considered in the modeling. In addition, the maximum air dispersion factor was selected from all of the five years at each receptor to represent the worst case air dispersion factors.

For example, Attachment 1 is an example of the FDM model output maximum PM10 1-hr air dispersion factor at the receptor located at Cartesian coordinates (0 meters, 9800 meters) of 18.7446 μg/m³. This value can also be obtained from, "CRANE10.XLS: Highest 1 hr" spreadsheet, which is included in Attachment 1.

CLIENT	JOB NUMBER		
NSWC-Crane			
SUBJECT: Calculations of contaminant specific air concentrations			
BASED ON		DRAWING NUMBER	
BY: Wagner	CHECKED BY: J. Lucas	APPROVED BY	DATE: 7-24-97

Step 2. Recompute the contaminant specific in-soil concentrations from sampling data collected at the Demolition Ground.

This is a task in unit manipulation to make the multiplication with the air dispersion factors in Step 1 more compatible. Metal concentrations were determined in weight percents, and explosives in parts per billion (ppb). All the metal concentrations were first multiplied by a factor 10^4 to convert from weight percents to mg/kg. Afterwards, the metal concentrations were multiplied by a correction factor of 10^{-6} to change the units from mg/kg to a unitless value so as to obtain $\mu g/m^3$ in the units when multiplied by the air dispersion factors.

For example, from Attachment 2 shows an arsenic concentration of 0.00709 (weight percent).

$$(0.00709)(10^4\ mg/kg) = \underline{70.9\ mg/kg}$$

then

$$(70.9\ mg/kg)(10^{-3}\ g/mg)(10^{-3}\ kg/g) = \underline{7.09 \times 10^{-5}}$$

The concentration of explosives were already in $\mu g/kg$ and were simply multiplied by a correction factor of $(10^{-6}\ g/\mu g)(10^{-3}\ kg/g)$ or 10^{-9} to allow for the multiplication with the air dispersion factor. This concentration can also be found on the "CRANE1 LS Insoil Conc" spreadsheet which is included with Attachment 2.

CLIENT	JOB NUMBER		
NSWC-Crane			
SUBJECT: Calculations of contaminant specific air concentrations.			
BASED ON		DRAWING NUMBER	
BY: Wagner	CHECKED BY: J. Nicu	APPROVED BY	DATE

For example, from Attachment 2, the RDX concentration was 631.5 μg/kg.

Therefore, to obtain a unitless concentration,

$$(631.5\ \mu g/kg)(10^{-6}\ g/\mu g)(10^{-3}\ Kg/g) = \underline{\underline{6.32 \times 10^{-7}}}$$

Step 3 Obtain contaminant specific air concentration

Contaminant specific air concentrations were determined by multiplying the maximum air dispersion factors for each of the averaging periods with the contaminant specific in-soil concentrations.

For example, the product of the maximum one hour air dispersion factor obtained in Step 1 (18.7446 μg/m³) and the in-soil arsenic concentration calculated in Step 2 (7.09×10^{-5}) produced a 1 hour arsenic air concentration at the receptor located at (0 meters, 9800 meters) from the source of

$$(18.7446\ \mu g/m^3)(7.09 \times 10^{-5}) = \underline{\underline{0.001329\ \mu g/m^3}}$$

Also, this arsenic air concentration can be found on the "CRANE10.XLS: 1hr avg conc" spreadsheet included with Attachment 2.

ATTACHMENT 1
EXAMPLE OF FDM MODEL OUTPUT FOR ONE HOUR CONCENTRATIONS

1

FUGITIVE DUST MODEL (FDM)
VERSION 92325
NOV, 1992

DATE AT START OF RUN: 07/10/97 TIME AT START OF RUN: 09:46:47.24

RUN TITLE:
NWSC-CRANE WIND EROSION FROM DG AREA, IND MET DATA

INPUT FILE NAME: crane2.in
OUTPUT FILE NAME: crane91.out
MET DATA READ FROM FILE NAME: crane91.bin

CONVERGENCE OPTION 1=OFF, 2=ON	1
MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED	2
PLOT FILE OUTPUT, 1=NO, 2=YES	1
MET DATA PRINT SWITCH, 1=NO, 2=YES	1
POST-PROCESSOR OUTPUT, 1=NO, 2=YES	1
DEP. VEL./GRAV. SETL. VEL., 1=DEFAULT, 2=USER	1
PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES	3
PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES	1
PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES	3
PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES	3
PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES	4
BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES	1
READ HOURLY EMISSION RATES, 1=NO, 2=YES	0
NUMBER OF SOURCES PROCESSED	1
NUMBER OF RECEPTORS PROCESSED	277
NUMBER OF PARTICLE SIZE CLASSES	1
NUMBER OF HOURS OF MET DATA PROCESSED	8760
LENGTH IN MINUTES OF 1-HOUR OF MET DATA	60.
ROUGHNESS LENGTH IN CM	1.00
SCALING FACTOR FOR SOURCE AND RECPTORS	1.0000
PARTICLE DENSITY IN G/CM**3	2.00
ANEMOMETER HEIGHT IN M	10.00

PREPROCESSED METEOROLOGICAL DATA SELECTION SWITCHES
111111111111111111111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111111111111111111111
111111111111111111111111111111111111111111111111111111111111111111111111111111111
1111111111111111111111111111111111111111111110

GENERAL PARTICLE SIZE CLASS INFORMATION

PARTICLE SIZE CLASS	CHAR. DIA. (UM)	GRAV. SETTLING VELOCITY (M/SEC)	DEPOSITION VELOCITY (M/SEC)	FRACTION IN EACH SIZE CLASS
1	10.0000000	**	**	1.0000

** COMPUTED BY FDM

1

RECEPTOR COORDINATES (X,Y,Z)

(0.,	500.,	0.)	(0.,	1000.,	0.)	(0.,	1500.,	0.)
(0.,	2000.,	0.)	(0.,	2500.,	0.)	(0.,	3000.,	0.)
(0.,	3500.,	0.)	(0.,	4000.,	0.)	(0.,	4500.,	0.)
(0.,	5000.,	0.)	(0.,	5500.,	0.)	(0.,	6000.,	0.)
(0.,	6500.,	0.)	(0.,	7000.,	0.)	(0.,	7500.,	0.)
(0.,	8000.,	0.)	(0.,	8500.,	0.)	(0.,	9000.,	0.)
(0.,	9500.,	0.)	(0.,	9800.,	0.)	(191.,	462.,	0.)
(383.,	924.,	0.)	(574.,	1386.,	0.)	(765.,	1848.,	0.)
(957.,	2310.,	0.)	(1148.,	2772.,	0.)	(1339.,	3234.,	0.)
(1531.,	3696.,	0.)	(1722.,	4157.,	0.)	(1913.,	4619.,	0.)
(2105.,	5081.,	0.)	(2296.,	5543.,	0.)	(2487.,	6005.,	0.)
(2679.,	6467.,	0.)	(2870.,	6929.,	0.)	(3061.,	7391.,	0.)
(3253.,	7853.,	0.)	(3444.,	8315.,	0.)	(3635.,	8777.,	0.)
(3827.,	9239.,	0.)	(4018.,	9701.,	0.)	(4210.,	10163.,	0.)
(354.,	354.,	0.)	(707.,	707.,	0.)	(1061.,	1061.,	0.)
(1414.,	1414.,	0.)	(1768.,	1768.,	0.)	(2121.,	2121.,	0.)
(2475.,	2475.,	0.)	(2828.,	2828.,	0.)	(3182.,	3182.,	0.)
(3536.,	3536.,	0.)	(3889.,	3889.,	0.)	(4243.,	4243.,	0.)
(4596.,	4596.,	0.)	(4950.,	4950.,	0.)	(5303.,	5303.,	0.)
(5657.,	5657.,	0.)	(6010.,	6010.,	0.)	(6364.,	6364.,	0.)
(6718.,	6718.,	0.)	(7071.,	7071.,	0.)	(7425.,	7425.,	0.)
(7778.,	7778.,	0.)	(8132.,	8132.,	0.)	(8415.,	8415.,	0.)
(462.,	191.,	0.)	(924.,	383.,	0.)	(1386.,	574.,	0.)
(1848.,	765.,	0.)	(2310.,	957.,	0.)	(2772.,	1148.,	0.)
(3234.,	1339.,	0.)	(3696.,	1531.,	0.)	(4157.,	1722.,	0.)
(4619.,	1913.,	0.)	(5081.,	2105.,	0.)	(5543.,	2296.,	0.)
(6005.,	2487.,	0.)	(6467.,	2679.,	0.)	(6929.,	2870.,	0.)
(7391.,	3061.,	0.)	(7853.,	3253.,	0.)	(8315.,	3444.,	0.)
(8777.,	3635.,	0.)	(9239.,	3827.,	0.)	(9701.,	4018.,	0.)
(10163.,	4210.,	0.)	(10625.,	4401.,	0.)	(11087.,	4592.,	0.)
(11548.,	4784.,	0.)	(12010.,	4975.,	0.)	(12472.,	5166.,	0.)
(12842.,	5319.,	0.)	(500.,	0.,	0.)	(1500.,	0.,	0.)
(2000.,	0.,	0.)	(2500.,	0.,	0.)	(3000.,	0.,	0.)
(3500.,	0.,	0.)	(4000.,	0.,	0.)	(4500.,	0.,	0.)
(5000.,	0.,	0.)	(5500.,	0.,	0.)	(6000.,	0.,	0.)
(6500.,	0.,	0.)	(7000.,	0.,	0.)	(7500.,	0.,	0.)
(7700.,	0.,	0.)	(462.,	-191.,	0.)	(924.,	-383.,	0.)
(1386.,	-574.,	0.)	(1848.,	-765.,	0.)	(2310.,	-957.,	0.)
(2772.,	-1148.,	0.)	(3234.,	-1339.,	0.)	(3696.,	-1531.,	0.)
(4157.,	-1722.,	0.)	(4619.,	-1913.,	0.)	(5081.,	-2105.,	0.)
(354.,	-354.,	0.)	(707.,	-707.,	0.)	(1061.,	-1061.,	0.)
(1414.,	-1414.,	0.)	(1768.,	-1768.,	0.)	(2121.,	-2121.,	0.)
(2475.,	-2475.,	0.)	(2828.,	-2828.,	0.)	(3182.,	-3182.,	0.)
(3536.,	-3536.,	0.)	(3677.,	-3677.,	0.)	(191.,	-462.,	0.)
(383.,	-924.,	0.)	(574.,	-1386.,	0.)	(765.,	-1848.,	0.)
(957.,	-2310.,	0.)	(1148.,	-2772.,	0.)	(1339.,	-3234.,	0.)
(1531.,	-3696.,	0.)	(1722.,	-4157.,	0.)	(1913.,	-4619.,	0.)
(2105.,	-5081.,	0.)	(2296.,	-5543.,	0.)	(2487.,	-6005.,	0.)
(2679.,	-6467.,	0.)	(2870.,	-6929.,	0.)	(3061.,	-7391.,	0.)
(0.,	-500.,	0.)	(0.,	-1000.,	0.)	(0.,	-1500.,	0.)
(0.,	-2000.,	0.)	(0.,	-2500.,	0.)	(0.,	-3000.,	0.)
(0.,	-3500.,	0.)	(0.,	-4000.,	0.)	(0.,	-4500.,	0.)
(0.,	-5000.,	0.)	(0.,	-5500.,	0.)	(0.,	-6000.,	0.)
(0.,	-6500.,	0.)	(0.,	-7000.,	0.)	(0.,	-7500.,	0.)
(0.,	-8000.,	0.)	(0.,	-8500.,	0.)	(0.,	-9000.,	0.)
(-191.,	-462.,	0.)	(-383.,	-924.,	0.)	(-574.,	-1386.,	0.)
(-765.,	-1848.,	0.)	(-957.,	-2310.,	0.)	(-1148.,	-2772.,	0.)
(-1339.,	-3234.,	0.)	(-1531.,	-3696.,	0.)	(-1722.,	-4157.,	0.)
(-1913.,	-4619.,	0.)	(-2105.,	-5081.,	0.)	(-2296.,	-5543.,	0.)

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( -2487.,  -6005.,  0.)  ( -2679.,  -6467.,  0.)  ( -2870.,  -6929.,  0.)
( -3061.,  -7391.,  0.)  ( -3253.,  -7853.,  0.)  ( -3444.,  -8315.,  0.)
( -3635.,  -8777.,  0.)  ( -3827.,  -9239.,  0.)  ( -3942.,  -9516.,  0.)
(  -354.,   -354.,  0.)  ( -1061.,  -1061.,  0.)  ( -1414.,  -1414.,  0.)
( -1768.,  -1768.,  0.)  ( -2121.,  -2121.,  0.)  ( -2475.,  -2475.,  0.)
( -2828.,  -2828.,  0.)  ( -3182.,  -3182.,  0.)  ( -3536.,  -3536.,  0.)
( -3889.,  -3889.,  0.)  ( -4243.,  -4243.,  0.)  ( -4596.,  -4596.,  0.)
( -4950.,  -4950.,  0.)  ( -5303.,  -5303.,  0.)  ( -5657.,  -5657.,  0.)
( -5940.,  -5940.,  0.)  (  -462.,   -191.,  0.)  ( -1386.,   -574.,  0.)
( -1848.,   -765.,  0.)  ( -2310.,   -957.,  0.)  ( -2772.,  -1148.,  0.)
( -3234.,  -1339.,  0.)  ( -3696.,  -1531.,  0.)  ( -4157.,  -1722.,  0.)
( -4619.,  -1913.,  0.)  ( -5081.,  -2105.,  0.)  ( -5543.,  -2296.,  0.)
( -6005.,  -2487.,  0.)  (  -500.,      0.,  0.)  ( -1500.,      0.,  0.)
( -2000.,      0.,  0.)  ( -2500.,      0.,  0.)  ( -3000.,      0.,  0.)
( -3500.,      0.,  0.)  ( -4000.,      0.,  0.)  ( -4300.,      0.,  0.)
(  -462.,    191.,  0.)  ( -1386.,    574.,  0.)  ( -1848.,    765.,  0.)
( -2310.,    957.,  0.)  ( -2772.,   1148.,  0.)  ( -3234.,   1339.,  0.)
( -3696.,   1531.,  0.)  ( -4157.,   1722.,  0.)  ( -4619.,   1913.,  0.)
(  -354.,    354.,  0.)  ( -1061.,   1061.,  0.)  ( -1414.,   1414.,  0.)
( -1768.,   1768.,  0.)  ( -2121.,   2121.,  0.)  ( -2475.,   2475.,  0.)
( -2828.,   2828.,  0.)  ( -3182.,   3182.,  0.)  ( -3536.,   3536.,  0.)
( -3889.,   3889.,  0.)  ( -4243.,   4243.,  0.)  ( -4596.,   4596.,  0.)
( -4950.,   4950.,  0.)  ( -5303.,   5303.,  0.)  ( -5657.,   5657.,  0.)
( -5940.,   5940.,  0.)  (  -191.,    462.,  0.)  (  -574.,   1386.,  0.)
(  -765.,   1848.,  0.)  (  -957.,   2310.,  0.)  ( -1148.,   2772.,  0.)
( -1339.,   3234.,  0.)  ( -1531.,   3696.,  0.)  ( -1722.,   4157.,  0.)
( -1913.,   4619.,  0.)  ( -2105.,   5081.,  0.)  ( -2296.,   5543.,  0.)
( -2487.,   6005.,  0.)  ( -2679.,   6467.,  0.)  ( -2870.,   6929.,  0.)
( -2947.,   7114.,  0.)  ( -2105.,   5081.,  0.)  ( -1990.,   4804.,  0.)
( -3061.,   7391.,  0.)  ( -3444.,   8315.,  0.)  ( -3482.,   8407.,  0.)
(  1061.,   3960.,  0.)  (   209.,   5996.,  0.)  ( -1705.,  -8021.,  0.)
(  -282.,    530.,  0.)  (  6431.,   1485.,  0.)  (  8682.,   1688.,  0.)
(  9976.,    698.,  0.)  (  5936.,  -3709.,  0.)  ( 14518.,   3352.,  0.)
( -4852.,   -682.,  0.)  (
1
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SOURCE INFORMATION

TYPE	ENTERED EMIS. RATE (G/SEC, G/SEC/M OR G/SEC/M**2)	TOTAL EMISSION RATE (G/SEC)	WIND SPEED FAC.	X1 (M)	Y1 (M)	X2 (M)	Y2 (M)	HEIGHT (M)	WIDTH (M)
3	0.000000000	0.00001	-1.000	0.	0.	381.	228.	0.50	0.00

TOTAL EMISSIONS 0.86868E-05 GRAMS/SEC
NOTE: SOME SOURCE EMISSION RATES ARE A FUNCTION OF WIND SPEED AND TOTAL IS NOT CORRECT

LONG DISTANCE (50,000 M) MASS CONSERVATION CORRECTION FACTORS USED

1

8760 HOUR AVERAGE FOR HOUR ENDING 8760
CONCENTRATIONS IN MICROGRAMS/M**3
AVERAGE EMISSIONS FOR THIS PERIOD = 0.76100E+01 GRAMS/SEC

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(     0.,    500.,    14.944)  (     0.,   1000.,     4.113)  (     0.,   1500.,     2.052)
(     0.,   2000.,     1.255)  (     0.,   2500.,     0.855)  (     0.,   3000.,     0.624)
(     0.,   3500.,     0.480)  (     0.,   4000.,     0.382)  (     0.,   4500.,     0.312)
(     0.,   5000.,     0.261)  (     0.,   5500.,     0.222)  (     0.,   6000.,     0.191)
(     0.,   6500.,     0.166)  (     0.,   7000.,     0.147)  (     0.,   7500.,     0.130)
(     0.,   8000.,     0.117)  (     0.,   8500.,     0.105)  (     0.,   9000.,     0.095)
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(0.,	9500.,	0.087)	(0.,	9800.,	0.082)	(191.,	462.,	22.609)
(383.,	924.,	6.359)	(574.,	1386.,	3.170)	(765.,	1848.,	1.928)
(957.,	2310.,	1.308)	(1148.,	2772.,	0.952)	(1339.,	3234.,	0.730)
(1531.,	3696.,	0.580)	(1722.,	4157.,	0.474)	(1913.,	4619.,	0.395)
(2105.,	5081.,	0.336)	(2296.,	5543.,	0.289)	(2487.,	6005.,	0.252)
(2679.,	6467.,	0.222)	(2870.,	6929.,	0.197)	(3061.,	7391.,	0.176)
(3253.,	7853.,	0.158)	(3444.,	8315.,	0.144)	(3635.,	8777.,	0.131)
(3827.,	9239.,	0.120)	(4018.,	9701.,	0.110)	(4210.,	10163.,	0.102)
(354.,	354.,	30.619)	(707.,	707.,	8.041)	(1061.,	1061.,	3.838)
(1414.,	1414.,	2.291)	(1768.,	1768.,	1.537)	(2121.,	2121.,	1.111)
(2475.,	2475.,	0.848)	(2828.,	2828.,	0.672)	(3182.,	3182.,	0.546)
(3536.,	3536.,	0.454)	(3889.,	3889.,	0.385)	(4243.,	4243.,	0.330)
(4596.,	4596.,	0.287)	(4950.,	4950.,	0.252)	(5303.,	5303.,	0.224)
(5657.,	5657.,	0.200)	(6010.,	6010.,	0.180)	(6364.,	6364.,	0.163)
(6718.,	6718.,	0.148)	(7071.,	7071.,	0.135)	(7425.,	7425.,	0.124)
(7778.,	7778.,	0.115)	(8132.,	8132.,	0.106)	(8415.,	8415.,	0.100)
(462.,	191.,	32.366)	(924.,	383.,	8.107)	(1386.,	574.,	3.793)
(1848.,	765.,	2.243)	(2310.,	957.,	1.500)	(2772.,	1148.,	1.080)
(3234.,	1339.,	0.823)	(3696.,	1531.,	0.651)	(4157.,	1722.,	0.530)
(4619.,	1913.,	0.440)	(5081.,	2105.,	0.373)	(5543.,	2296.,	0.320)
(6005.,	2487.,	0.278)	(6467.,	2679.,	0.245)	(6929.,	2870.,	0.217)
(7391.,	3061.,	0.194)	(7853.,	3253.,	0.175)	(8315.,	3444.,	0.158)
(8777.,	3635.,	0.144)	(9239.,	3827.,	0.132)	(9701.,	4018.,	0.121)
(10163.,	4210.,	0.112)	(10625.,	4401.,	0.104)	(11087.,	4592.,	0.097)
(11548.,	4784.,	0.090)	(12010.,	4975.,	0.085)	(12472.,	5166.,	0.079)
(12842.,	5319.,	0.076)	(500.,	0.,	24.451)	(1500.,	0.,	2.990)
(2000.,	0.,	1.798)	(2500.,	0.,	1.215)	(3000.,	0.,	0.883)
(3500.,	0.,	0.678)	(4000.,	0.,	0.540)	(4500.,	0.,	0.442)
(5000.,	0.,	0.370)	(5500.,	0.,	0.315)	(6000.,	0.,	0.272)
(6500.,	0.,	0.239)	(7000.,	0.,	0.211)	(7500.,	0.,	0.188)
(7700.,	0.,	0.180)	(462.,	-191.,	24.054)	(924.,	-383.,	6.293)
(1386.,	-574.,	3.024)	(1848.,	-765.,	1.818)	(2310.,	-957.,	1.228)
(2772.,	-1148.,	0.893)	(3234.,	-1339.,	0.685)	(3696.,	-1531.,	0.546)
(4157.,	-1722.,	0.448)	(4619.,	-1913.,	0.375)	(5081.,	-2105.,	0.320)
(354.,	-354.,	15.505)	(707.,	-707.,	4.107)	(1061.,	-1061.,	1.958)
(1414.,	-1414.,	1.169)	(1768.,	-1768.,	0.785)	(2121.,	-2121.,	0.569)
(2475.,	-2475.,	0.435)	(2828.,	-2828.,	0.346)	(3182.,	-3182.,	0.282)
(3536.,	-3536.,	0.235)	(3677.,	-3677.,	0.220)	(191.,	-462.,	12.604)
(383.,	-924.,	3.191)	(574.,	-1386.,	1.527)	(765.,	-1848.,	0.917)
(957.,	-2310.,	0.619)	(1148.,	-2772.,	0.451)	(1339.,	-3234.,	0.346)
(1531.,	-3696.,	0.275)	(1722.,	-4157.,	0.225)	(1913.,	-4619.,	0.188)
(2105.,	-5081.,	0.160)	(2296.,	-5543.,	0.138)	(2487.,	-6005.,	0.120)
(2679.,	-6467.,	0.106)	(2870.,	-6929.,	0.094)	(3061.,	-7391.,	0.085)
(0.,	-500.,	12.526)	(0.,	-1000.,	3.727)	(0.,	-1500.,	1.858)
(0.,	-2000.,	1.128)	(0.,	-2500.,	0.764)	(0.,	-3000.,	0.556)
(0.,	-3500.,	0.426)	(0.,	-4000.,	0.339)	(0.,	-4500.,	0.277)
(0.,	-5000.,	0.231)	(0.,	-5500.,	0.196)	(0.,	-6000.,	0.169)
(0.,	-6500.,	0.148)	(0.,	-7000.,	0.130)	(0.,	-7500.,	0.116)
(0.,	-8000.,	0.104)	(0.,	-8500.,	0.094)	(0.,	-9000.,	0.085)
(-191.,	-462.,	9.765)	(-383.,	-924.,	2.354)	(-574.,	-1386.,	1.154)
(-765.,	-1848.,	0.701)	(-957.,	-2310.,	0.476)	(-1148.,	-2772.,	0.347)
(-1339.,	-3234.,	0.267)	(-1531.,	-3696.,	0.212)	(-1722.,	-4157.,	0.173)
(-1913.,	-4619.,	0.145)	(-2105.,	-5081.,	0.123)	(-2296.,	-5543.,	0.106)
(-2487.,	-6005.,	0.092)	(-2679.,	-6467.,	0.081)	(-2870.,	-6929.,	0.072)
(-3061.,	-7391.,	0.065)	(-3253.,	-7853.,	0.058)	(-3444.,	-8315.,	0.053)
(-3635.,	-8777.,	0.048)	(-3827.,	-9239.,	0.044)	(-3942.,	-9516.,	0.042)
(-354.,	-354.,	10.719)	(-1061.,	-1061.,	1.427)	(-1414.,	-1414.,	0.864)
(-1768.,	-1768.,	0.585)	(-2121.,	-2121.,	0.425)	(-2475.,	-2475.,	0.325)
(-2828.,	-2828.,	0.259)	(-3182.,	-3182.,	0.211)	(-3536.,	-3536.,	0.176)
(-3889.,	-3889.,	0.149)	(-4243.,	-4243.,	0.129)	(-4596.,	-4596.,	0.112)

(-4950.,	-4950.,	0.099)	(-5303.,	-5303.,	0.088)	(-5657.,	-5657.,	0.078)
(-5940.,	-5940.,	0.072)	(-462.,	-191.,	14.346)	(-1386.,	-574.,	1.859)
(-1848.,	-765.,	1.120)	(-2310.,	-957.,	0.757)	(-2772.,	-1148.,	0.550)
(-3234.,	-1339.,	0.421)	(-3696.,	-1531.,	0.335)	(-4157.,	-1722.,	0.274)
(-4619.,	-1913.,	0.229)	(-5081.,	-2105.,	0.195)	(-5543.,	-2296.,	0.169)
(-6005.,	-2487.,	0.147)	(-500.,	0.,	12.655)	(-1500.,	0.,	1.612)
(-2000.,	0.,	0.979)	(-2500.,	0.,	0.665)	(-3000.,	0.,	0.485)
(-3500.,	0.,	0.373)	(-4000.,	0.,	0.297)	(-4300.,	0.,	0.262)
(-462.,	191.,	11.314)	(-1386.,	574.,	1.438)	(-1848.,	765.,	0.864)
(-2310.,	957.,	0.582)	(-2772.,	1148.,	0.422)	(-3234.,	1339.,	0.323)
(-3696.,	1531.,	0.256)	(-4157.,	1722.,	0.209)	(-4619.,	1913.,	0.174)
(-354.,	354.,	6.894)	(-1061.,	1061.,	0.841)	(-1414.,	1414.,	0.503)
(-1768.,	1768.,	0.337)	(-2121.,	2121.,	0.244)	(-2475.,	2475.,	0.186)
(-2828.,	2828.,	0.147)	(-3182.,	3182.,	0.120)	(-3536.,	3536.,	0.100)
(-3889.,	3889.,	0.085)	(-4243.,	4243.,	0.073)	(-4596.,	4596.,	0.064)
(-4950.,	4950.,	0.056)	(-5303.,	5303.,	0.050)	(-5657.,	5657.,	0.045)
(-5940.,	5940.,	0.041)	(-191.,	462.,	8.368)	(-574.,	1386.,	1.028)
(-765.,	1848.,	0.636)	(-957.,	2310.,	0.437)	(-1148.,	2772.,	0.322)
(-1339.,	3234.,	0.249)	(-1531.,	3696.,	0.200)	(-1722.,	4157.,	0.164)
(-1913.,	4619.,	0.138)	(-2105.,	5081.,	0.118)	(-2296.,	5543.,	0.102)
(-2487.,	6005.,	0.089)	(-2679.,	6467.,	0.079)	(-2870.,	6929.,	0.070)
(-2947.,	7114.,	0.067)	(-2105.,	5081.,	0.118)	(-1990.,	4804.,	0.129)
(-3061.,	7391.,	0.063)	(-3444.,	8315.,	0.052)	(-3482.,	8407.,	0.051)
(1061.,	3960.,	0.466)	(209.,	5996.,	0.203)	(-1705.,	-8021.,	0.072)
(-282.,	530.,	5.122)	(6431.,	1485.,	0.249)	(8682.,	1688.,	0.160)
(9976.,	698.,	0.116)	(5936.,	-3709.,	0.232)	(14518.,	3352.,	0.068)
(-4852.,	-682.,	0.190)	(					

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8760 HOUR AVERAGE FOR HOUR ENDING 8760
DEPOSITION RATE IN MICROGRAMS/M**2/SEC

(0.,	500.,	0.207)	(0.,	1000.,	0.057)	(0.,	1500.,	0.029)
(0.,	2000.,	0.017)	(0.,	2500.,	0.012)	(0.,	3000.,	0.009)
(0.,	3500.,	0.007)	(0.,	4000.,	0.005)	(0.,	4500.,	0.004)
(0.,	5000.,	0.004)	(0.,	5500.,	0.003)	(0.,	6000.,	0.003)
(0.,	6500.,	0.002)	(0.,	7000.,	0.002)	(0.,	7500.,	0.002)
(0.,	8000.,	0.002)	(0.,	8500.,	0.001)	(0.,	9000.,	0.001)
(0.,	9500.,	0.001)	(0.,	9800.,	0.001)	(191.,	462.,	0.324)
(383.,	924.,	0.091)	(574.,	1386.,	0.046)	(765.,	1848.,	0.028)
(957.,	2310.,	0.019)	(1148.,	2772.,	0.014)	(1339.,	3234.,	0.010)
(1531.,	3696.,	0.008)	(1722.,	4157.,	0.007)	(1913.,	4619.,	0.006)
(2105.,	5081.,	0.005)	(2296.,	5543.,	0.004)	(2487.,	6005.,	0.004)
(2679.,	6467.,	0.003)	(2870.,	6929.,	0.003)	(3061.,	7391.,	0.003)
(3253.,	7853.,	0.002)	(3444.,	8315.,	0.002)	(3635.,	8777.,	0.002)
(3827.,	9239.,	0.002)	(4018.,	9701.,	0.002)	(4210.,	10163.,	0.001)
(354.,	354.,	0.443)	(707.,	707.,	0.116)	(1061.,	1061.,	0.055)
(1414.,	1414.,	0.033)	(1768.,	1768.,	0.022)	(2121.,	2121.,	0.016)
(2475.,	2475.,	0.012)	(2828.,	2828.,	0.010)	(3182.,	3182.,	0.008)
(3536.,	3536.,	0.006)	(3889.,	3889.,	0.005)	(4243.,	4243.,	0.005)
(4596.,	4596.,	0.004)	(4950.,	4950.,	0.004)	(5303.,	5303.,	0.003)
(5657.,	5657.,	0.003)	(6010.,	6010.,	0.003)	(6364.,	6364.,	0.002)
(6718.,	6718.,	0.002)	(7071.,	7071.,	0.002)	(7425.,	7425.,	0.002)
(7778.,	7778.,	0.002)	(8132.,	8132.,	0.002)	(8415.,	8415.,	0.001)
(462.,	191.,	0.452)	(924.,	383.,	0.115)	(1386.,	574.,	0.054)
(1848.,	765.,	0.032)	(2310.,	957.,	0.021)	(2772.,	1148.,	0.015)
(3234.,	1339.,	0.012)	(3696.,	1531.,	0.009)	(4157.,	1722.,	0.007)
(4619.,	1913.,	0.006)	(5081.,	2105.,	0.005)	(5543.,	2296.,	0.005)
(6005.,	2487.,	0.004)	(6467.,	2679.,	0.003)	(6929.,	2870.,	0.003)
(7391.,	3061.,	0.003)	(7853.,	3253.,	0.002)	(8315.,	3444.,	0.002)
(8777.,	3635.,	0.002)	(9239.,	3827.,	0.002)	(9701.,	4018.,	0.002)

(10163.,	4210.,	0.002)	(10625.,	4401.,	0.001)	(11087.,	4592.,	0.001)
(11548.,	4784.,	0.001)	(12010.,	4975.,	0.001)	(12472.,	5166.,	0.001)
(12842.,	5319.,	0.001)	(500.,	0.,	0.300)	(1500.,	0.,	0.036)
(2000.,	0.,	0.022)	(2500.,	0.,	0.015)	(3000.,	0.,	0.011)
(3500.,	0.,	0.008)	(4000.,	0.,	0.006)	(4500.,	0.,	0.005)
(5000.,	0.,	0.004)	(5500.,	0.,	0.004)	(6000.,	0.,	0.003)
(6500.,	0.,	0.003)	(7000.,	0.,	0.003)	(7500.,	0.,	0.002)
(7700.,	0.,	0.002)	(462.,	-191.,	0.287)	(924.,	-383.,	0.075)
(1386.,	-574.,	0.036)	(1848.,	-765.,	0.022)	(2310.,	-957.,	0.015)
(2772.,	-1148.,	0.011)	(3234.,	-1339.,	0.008)	(3696.,	-1531.,	0.007)
(4157.,	-1722.,	0.005)	(4619.,	-1913.,	0.004)	(5081.,	-2105.,	0.004)
(354.,	-354.,	0.179)	(707.,	-707.,	0.047)	(1061.,	-1061.,	0.022)
(1414.,	-1414.,	0.013)	(1768.,	-1768.,	0.009)	(2121.,	-2121.,	0.006)
(2475.,	-2475.,	0.005)	(2828.,	-2828.,	0.004)	(3182.,	-3182.,	0.003)
(3536.,	-3536.,	0.003)	(3677.,	-3677.,	0.002)	(191.,	-462.,	0.149)
(383.,	-924.,	0.038)	(574.,	-1386.,	0.018)	(765.,	-1848.,	0.011)
(957.,	-2310.,	0.007)	(1148.,	-2772.,	0.005)	(1339.,	-3234.,	0.004)
(1531.,	-3696.,	0.003)	(1722.,	-4157.,	0.003)	(1913.,	-4619.,	0.002)
(2105.,	-5081.,	0.002)	(2296.,	-5543.,	0.002)	(2487.,	-6005.,	0.001)
(2679.,	-6467.,	0.001)	(2870.,	-6929.,	0.001)	(3061.,	-7391.,	0.001)
(0.,	-500.,	0.149)	(0.,	-1000.,	0.044)	(0.,	-1500.,	0.021)
(0.,	-2000.,	0.013)	(0.,	-2500.,	0.009)	(0.,	-3000.,	0.006)
(0.,	-3500.,	0.005)	(0.,	-4000.,	0.004)	(0.,	-4500.,	0.003)
(0.,	-5000.,	0.003)	(0.,	-5500.,	0.002)	(0.,	-6000.,	0.002)
(0.,	-6500.,	0.002)	(0.,	-7000.,	0.001)	(0.,	-7500.,	0.001)
(0.,	-8000.,	0.001)	(0.,	-8500.,	0.001)	(0.,	-9000.,	0.001)
(-191.,	-462.,	0.118)	(-383.,	-924.,	0.029)	(-574.,	-1386.,	0.014)
(-765.,	-1848.,	0.008)	(-957.,	-2310.,	0.006)	(-1148.,	-2772.,	0.004)
(-1339.,	-3234.,	0.003)	(-1531.,	-3696.,	0.003)	(-1722.,	-4157.,	0.002)
(-1913.,	-4619.,	0.002)	(-2105.,	-5081.,	0.001)	(-2296.,	-5543.,	0.001)
(-2487.,	-6005.,	0.001)	(-2679.,	-6467.,	0.001)	(-2870.,	-6929.,	0.001)
(-3061.,	-7391.,	0.001)	(-3253.,	-7853.,	0.001)	(-3444.,	-8315.,	0.001)
(-3635.,	-8777.,	0.001)	(-3827.,	-9239.,	0.001)	(-3942.,	-9516.,	0.001)
(-354.,	-354.,	0.132)	(-1061.,	-1061.,	0.018)	(-1414.,	-1414.,	0.011)
(-1768.,	-1768.,	0.007)	(-2121.,	-2121.,	0.005)	(-2475.,	-2475.,	0.004)
(-2828.,	-2828.,	0.003)	(-3182.,	-3182.,	0.003)	(-3536.,	-3536.,	0.002)
(-3889.,	-3889.,	0.002)	(-4243.,	-4243.,	0.002)	(-4596.,	-4596.,	0.001)
(-4950.,	-4950.,	0.001)	(-5303.,	-5303.,	0.001)	(-5657.,	-5657.,	0.001)
(-5940.,	-5940.,	0.001)	(-462.,	-191.,	0.181)	(-1386.,	-574.,	0.024)
(-1848.,	-765.,	0.014)	(-2310.,	-957.,	0.010)	(-2772.,	-1148.,	0.007)
(-3234.,	-1339.,	0.005)	(-3696.,	-1531.,	0.004)	(-4157.,	-1722.,	0.003)
(-4619.,	-1913.,	0.003)	(-5081.,	-2105.,	0.002)	(-5543.,	-2296.,	0.002)
(-6005.,	-2487.,	0.002)	(-500.,	0.,	0.155)	(-1500.,	0.,	0.019)
(-2000.,	0.,	0.012)	(-2500.,	0.,	0.008)	(-3000.,	0.,	0.006)
(-3500.,	0.,	0.004)	(-4000.,	0.,	0.004)	(-4300.,	0.,	0.003)
(-462.,	191.,	0.140)	(-1386.,	574.,	0.018)	(-1848.,	765.,	0.011)
(-2310.,	957.,	0.007)	(-2772.,	1148.,	0.005)	(-3234.,	1339.,	0.004)
(-3696.,	1531.,	0.003)	(-4157.,	1722.,	0.003)	(-4619.,	1913.,	0.002)
(-354.,	354.,	0.089)	(-1061.,	1061.,	0.011)	(-1414.,	1414.,	0.006)
(-1768.,	1768.,	0.004)	(-2121.,	2121.,	0.003)	(-2475.,	2475.,	0.002)
(-2828.,	2828.,	0.002)	(-3182.,	3182.,	0.002)	(-3536.,	3536.,	0.001)
(-3889.,	3889.,	0.001)	(-4243.,	4243.,	0.001)	(-4596.,	4596.,	0.001)
(-4950.,	4950.,	0.001)	(-5303.,	5303.,	0.001)	(-5657.,	5657.,	0.001)
(-5940.,	5940.,	0.001)	(-191.,	462.,	0.111)	(-574.,	1386.,	0.013)
(-765.,	1848.,	0.008)	(-957.,	2310.,	0.006)	(-1148.,	2772.,	0.004)
(-1339.,	3234.,	0.003)	(-1531.,	3696.,	0.003)	(-1722.,	4157.,	0.002)
(-1913.,	4619.,	0.002)	(-2105.,	5081.,	0.002)	(-2296.,	5543.,	0.001)
(-2487.,	6005.,	0.001)	(-2679.,	6467.,	0.001)	(-2870.,	6929.,	0.001)
(-2947.,	7114.,	0.001)	(-2105.,	5081.,	0.002)	(-1990.,	4804.,	0.002)
(-3061.,	7391.,	0.001)	(-3444.,	8315.,	0.001)	(-3482.,	8407.,	0.001)

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(  1061.,   3960.,     0.007)  (   209.,   5996.,     0.003)  ( -1705.,  -8021.,     0.001)
(  -282.,    530.,     0.066)  (  6431.,   1485.,     0.003)  (  8682.,   1688.,     0.002)
(  9976.,    698.,     0.001)  (  5936.,  -3709.,     0.003)  ( 14518.,   3352.,     0.001)
( -4852.,   -682.,     0.002)  (
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TOP 50 TABLE FOR 1 HOUR AVERAGES

RANK	RECEPTOR	X-COORDINATE	Y-COORDINATE	ENDING HOUR	CONCENTRATION	DEPOSITION
1	203	-462.0	-191.0	5662	1414.5016	17.0441
2	110	462.0	-191.0	998	1048.5631	9.6744
3	110	462.0	-191.0	1206	1047.9813	9.6691
4	67	462.0	191.0	8499	1043.7495	9.9932
5	223	-462.0	191.0	1153	1043.1744	9.9877
6	223	-462.0	191.0	7499	1037.6034	9.8424
7	67	462.0	191.0	1383	1019.2164	9.5787
8	67	462.0	191.0	724	1018.2720	8.1698
9	110	462.0	-191.0	1187	1014.8681	10.1829
10	223	-462.0	191.0	360	1013.5959	10.2664
11	67	462.0	191.0	424	1013.2097	9.9769
12	67	462.0	191.0	7421	1013.2097	9.9769
13	223	-462.0	191.0	2983	1010.5659	12.1178
14	203	-462.0	-191.0	2952	1006.4012	11.7376
15	67	462.0	191.0	1358	1002.1191	9.2459
16	203	-462.0	-191.0	2948	1000.6441	12.1096
17	67	462.0	191.0	1548	1000.3024	11.1338
18	203	-462.0	-191.0	2936	998.9228	11.2233
19	223	-462.0	191.0	1687	998.6811	9.4732
20	223	-462.0	191.0	3087	997.7595	12.9783
21	110	462.0	-191.0	2264	994.7372	11.4941
22	223	-462.0	191.0	7298	994.7372	11.4941
23	223	-462.0	191.0	2943	988.8976	12.8631
24	203	-462.0	-191.0	7679	987.7012	10.1947
25	223	-462.0	191.0	3081	983.7049	11.9046
26	203	-462.0	-191.0	3762	978.4797	13.5250
27	203	-462.0	-191.0	871	977.6591	10.2834
28	203	-462.0	-191.0	3304	976.5228	12.3667
29	110	462.0	-191.0	6882	973.1557	11.1404
30	223	-462.0	191.0	1925	971.7846	11.2289
31	110	462.0	-191.0	270	969.9636	8.9493
32	223	-462.0	191.0	7694	968.5214	10.8817
33	67	462.0	191.0	2070	965.4976	9.2440
34	110	462.0	-191.0	566	964.4974	8.3542
35	223	-462.0	191.0	8469	959.4556	8.6919
36	67	462.0	191.0	641	959.1603	9.5494
37	67	462.0	191.0	1378	957.8948	9.0827
38	110	462.0	-191.0	393	957.0897	8.9879
39	203	-462.0	-191.0	1727	956.2701	8.9045
40	95	500.0	0.0	728	955.5472	7.6048
41	223	-462.0	191.0	3082	953.4484	11.8585
42	110	462.0	-191.0	7882	952.6565	8.2961
43	95	500.0	0.0	720	952.1549	7.8313
44	110	462.0	-191.0	1306	952.1253	10.0582
45	223	-462.0	191.0	1680	951.6041	10.0527
46	203	-462.0	-191.0	8057	951.2606	9.5644
47	110	462.0	-191.0	1981	950.3948	10.1400

48	67	462.0	191.0	8408	950.1122	9.6475
49	67	462.0	191.0	616	948.8240	8.5766
50	223	-462.0	191.0	2447	948.4395	10.3598

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HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

RECEPTOR	X-COORDINATE	Y-COORDINATE	HIGHEST VALUE	ENDING HOUR	DEPOSITION	SECOND HIGH	ENDING HOUR	DEPOSTION
1	0.0	500.0	785.9926	2.	5.9375	600.8240	7411.	5.8064
2	0.0	1000.0	292.3861	8485.	2.8791	286.0093	1412.	3.2741
3	0.0	1500.0	198.0097	8485.	1.9498	194.4262	1412.	2.2257
4	0.0	2000.0	141.4359	8485.	1.3927	139.3309	1412.	1.5950
5	0.0	2500.0	105.4798	8485.	1.0386	104.1213	1412.	1.1919
6	0.0	3000.0	81.6665	8485.	0.8042	80.7071	1412.	0.9239
7	0.0	3500.0	65.4806	8485.	0.6448	64.7401	1412.	0.7411
8	0.0	4000.0	53.7985	8485.	0.5297	53.1954	1412.	0.6090
9	0.0	4500.0	45.0811	8485.	0.4439	44.5716	1412.	0.5102
10	0.0	5000.0	38.3987	8485.	0.3781	37.9565	1412.	0.4345
11	0.0	5500.0	33.1581	8485.	0.3265	32.7666	1412.	0.3751
12	0.0	6000.0	28.9672	8485.	0.2852	28.8499	6044.	0.4443
13	0.0	6500.0	26.6980	6044.	0.4111	25.5591	8485.	0.2517
14	0.0	7000.0	24.9370	6044.	0.3840	22.7471	8485.	0.2240
15	0.0	7500.0	23.4593	6044.	0.3613	20.6026	6046.	0.3514
16	0.0	8000.0	22.1924	6044.	0.3418	19.4859	6046.	0.3324
17	0.0	8500.0	21.0866	6044.	0.3247	18.5114	6046.	0.3157
18	0.0	9000.0	20.1073	6044.	0.3096	17.6485	6046.	0.3010
19	0.0	9500.0	19.2298	6044.	0.2961	16.8758	6046.	0.2878
20	0.0	9800.0	18.7446	6044.	0.2887	16.4485	6046.	0.2805
21	191.0	462.0	820.2772	3963.	9.5271	619.5647	13.	5.6127
22	383.0	924.0	314.8911	298.	2.8015	313.0527	8386.	2.6414
23	574.0	1386.0	211.1851	298.	1.8788	207.7396	8159.	2.1241
24	765.0	1848.0	149.6967	298.	1.3318	146.7902	8159.	1.5009
25	957.0	2310.0	111.2653	298.	0.9899	108.7006	8159.	1.1114
26	1148.0	2772.0	86.0091	298.	0.7652	83.8339	8159.	0.8572
27	1339.0	3234.0	68.9326	298.	0.6133	67.0524	8159.	0.6856
28	1531.0	3696.0	56.6584	298.	0.5041	54.9766	8159.	0.5621
29	1722.0	4157.0	47.5213	298.	0.4228	46.0294	8159.	0.4706
30	1913.0	4619.0	40.5015	298.	0.3603	39.1785	8159.	0.4006
31	2105.0	5081.0	35.0091	298.	0.3115	33.8044	8159.	0.3456
32	2296.0	5543.0	30.6076	298.	0.2723	29.5226	8159.	0.3019
33	2487.0	6005.0	27.0280	298.	0.2405	26.0796	6047.	0.4138
34	2679.0	6467.0	24.3584	6047.	0.3865	24.0782	298.	0.2142
35	2870.0	6929.0	22.9099	6047.	0.3635	21.6083	298.	0.1922
36	3061.0	7391.0	21.6687	6047.	0.3438	19.5204	298.	0.1737
37	3253.0	7853.0	20.5899	6047.	0.3267	17.7407	298.	0.1578
38	3444.0	8315.0	19.6313	6047.	0.3115	16.2049	298.	0.1442
39	3635.0	8777.0	18.7731	6047.	0.2979	14.8716	298.	0.1323
40	3827.0	9239.0	17.9998	6047.	0.2856	13.7089	298.	0.1220
41	4018.0	9701.0	17.2805	6047.	0.2742	12.7005	298.	0.1130
42	4210.0	10163.0	16.6240	6047.	0.2638	11.8091	298.	0.1051
43	354.0	354.0	809.0028	301.	7.3289	808.9251	300.	7.3282
44	707.0	707.0	374.8272	1132.	3.5227	372.7959	7590.	3.6366
45	1061.0	1061.0	230.5389	1132.	2.1666	229.1167	7590.	2.2350
46	1414.0	1414.0	156.7185	1132.	1.4729	155.6551	7590.	1.5184
47	1768.0	1768.0	113.6180	1132.	1.0678	112.7885	7590.	1.1002
48	2121.0	2121.0	86.5534	1132.	0.8134	85.8827	7590.	0.8378

49	2475.0	2475.0	68.6378	1132.	0.6451	68.0758	7590.	0.6641
50	2828.0	2828.0	56.0109	1132.	0.5264	55.5298	7590.	0.5417
51	3182.0	3182.0	46.6873	1132.	0.4388	46.3021	114.	0.4433
52	3536.0	3536.0	39.6171	1132.	0.3723	39.3077	114.	0.3763
53	3889.0	3889.0	34.1281	1132.	0.3207	33.8685	114.	0.3243
54	4243.0	4243.0	29.7465	1132.	0.2796	29.5304	114.	0.2827
55	4596.0	4596.0	26.2118	1132.	0.2463	26.0255	114.	0.2492
56	4950.0	4950.0	23.2968	1132.	0.2189	23.1339	114.	0.2215
57	5303.0	5303.0	20.8744	1132.	0.1962	20.7299	114.	0.1985
58	5657.0	5657.0	18.8260	1132.	0.1769	18.6966	114.	0.1790
59	6010.0	6010.0	17.0859	1132.	0.1606	16.9689	114.	0.1625
60	6364.0	6364.0	16.0678	370.	0.1989	15.5857	1132.	0.1465
61	6718.0	6718.0	15.3024	370.	0.1895	14.2831	1132.	0.1342
62	7071.0	7071.0	14.6148	370.	0.1809	13.1526	1132.	0.1236
63	7425.0	7425.0	13.9834	370.	0.1731	12.1691	1132.	0.1144
64	7778.0	7778.0	13.4086	370.	0.1660	11.3041	1132.	0.1062
65	8132.0	8132.0	12.8803	370.	0.1595	10.5318	1132.	0.0990
66	8415.0	8415.0	12.4884	370.	0.1546	9.9734	1132.	0.0937
67	462.0	191.0	1043.7495	8499.	9.9932	1019.2164	1383.	9.5787
68	924.0	383.0	434.5343	8499.	4.1604	404.3876	1383.	3.8005
69	1386.0	574.0	252.4477	8499.	2.4170	232.1974	641.	2.3118
70	1848.0	765.0	167.0266	8499.	1.5992	153.6851	641.	1.5301
71	2310.0	957.0	119.3855	8499.	1.1430	109.8835	641.	1.0940
72	2772.0	1148.0	90.2164	8499.	0.8638	83.0586	641.	0.8269
73	3234.0	1339.0	71.2190	8499.	0.6819	65.5859	641.	0.6530
74	3696.0	1531.0	57.8877	8499.	0.5542	53.3222	641.	0.5309
75	4157.0	1722.0	48.1786	8499.	0.4613	44.3890	641.	0.4419
76	4619.0	1913.0	40.8337	8499.	0.3910	37.6298	641.	0.3746
77	5081.0	2105.0	35.1183	8499.	0.3362	32.3693	641.	0.3223
78	5543.0	2296.0	30.5950	8499.	0.2929	28.2054	641.	0.2808
79	6005.0	2487.0	26.9419	8499.	0.2580	24.8421	641.	0.2473
80	6467.0	2679.0	23.9333	8499.	0.2291	22.0718	641.	0.2197
81	6929.0	2870.0	21.4371	8499.	0.2052	19.7730	641.	0.1969
82	7391.0	3061.0	19.3340	8499.	0.1851	17.8359	641.	0.1776
83	7853.0	3253.0	17.5353	8499.	0.1679	16.1791	641.	0.1611
84	8315.0	3444.0	15.9976	8499.	0.1532	14.7624	641.	0.1470
85	8777.0	3635.0	14.6652	8499.	0.1404	13.5349	641.	0.1348
86	9239.0	3827.0	13.5004	8499.	0.1293	12.4991	3009.	0.1401
87	9701.0	4018.0	12.4929	8499.	0.1196	11.6851	3009.	0.1310
88	10163.0	4210.0	11.6019	8499.	0.1111	10.9785	3009.	0.1231
89	10625.0	4401.0	10.8115	8499.	0.1035	10.3581	3009.	0.1161
90	11087.0	4592.0	10.1042	8499.	0.0967	9.8118	3009.	0.1100
91	11548.0	4784.0	9.4669	8499.	0.0906	9.3308	3009.	0.1046
92	12010.0	4975.0	8.9001	3009.	0.0998	8.8933	8499.	0.0851
93	12472.0	5166.0	8.5149	3009.	0.0955	8.3735	8499.	0.0802
94	12842.0	5319.0	8.2347	3009.	0.0923	7.9914	8499.	0.0765
95	500.0	0.0	955.5472	728.	7.6048	952.1549	720.	7.8313
96	1500.0	0.0	257.1400	391.	2.3508	247.7632	6674.	2.5333
97	2000.0	0.0	170.5009	391.	1.5588	163.2666	6674.	1.6693
98	2500.0	0.0	122.1009	391.	1.1163	116.2855	6674.	1.1890
99	3000.0	0.0	92.6838	391.	0.8473	87.5484	6674.	0.8952
100	3500.0	0.0	73.9762	391.	0.6763	68.8998	6674.	0.7045
101	4000.0	0.0	61.3331	391.	0.5607	55.8926	6674.	0.5715
102	4500.0	0.0	52.4619	391.	0.4796	46.4087	6674.	0.4745
103	5000.0	0.0	46.0303	391.	0.4208	40.6338	378.	0.4046
104	5500.0	0.0	41.2152	391.	0.3768	36.3543	378.	0.3619
105	6000.0	0.0	37.4957	391.	0.3428	33.0510	378.	0.3291
106	6500.0	0.0	34.5359	391.	0.3157	30.4170	378.	0.3028
107	7000.0	0.0	32.1157	391.	0.2936	28.2597	378.	0.2814
108	7500.0	0.0	30.0888	391.	0.2751	26.4625	378.	0.2635

109	7700.0	0.0	29.3649	391.	0.2685	25.8208	378.	0.2571
110	462.0	-191.0	1048.5631	998.	9.6744	1047.9813	1206.	9.6691
111	924.0	-383.0	437.5737	1206.	4.0372	436.8490	998.	4.0305
112	1386.0	-574.0	254.3508	1206.	2.3467	253.9782	998.	2.3433
113	1848.0	-765.0	168.2876	1206.	1.5527	168.1412	998.	1.5513
114	2310.0	-957.0	120.4045	1206.	1.1109	120.2431	998.	1.1094
115	2772.0	-1148.0	90.9704	1206.	0.8393	90.9047	998.	0.8387
116	3234.0	-1339.0	71.8104	1206.	0.6626	71.7932	998.	0.6624
117	3696.0	-1531.0	58.4159	1206.	0.5390	58.3776	998.	0.5386
118	4157.0	-1722.0	48.6326	1206.	0.4487	48.6040	998.	0.4484
119	4619.0	-1913.0	41.2187	1206.	0.3803	41.2082	998.	0.3802
120	5081.0	-2105.0	35.4731	1206.	0.3273	35.4515	998.	0.3271
121	354.0	-354.0	813.2571	731.	6.7456	812.6289	8432.	6.7404
122	707.0	-707.0	376.2929	281.	3.4401	371.2186	8010.	3.7247
123	1061.0	-1061.0	231.5659	281.	2.1170	228.0134	8010.	2.2878
124	1414.0	-1414.0	157.4870	281.	1.4398	154.9554	1203.	1.4429
125	1768.0	-1768.0	114.2178	281.	1.0442	112.7273	1203.	1.0497
126	2121.0	-2121.0	87.0386	281.	0.7957	86.0826	1203.	0.8016
127	2475.0	-2475.0	69.0446	281.	0.6312	68.3805	1203.	0.6367
128	2828.0	-2828.0	56.3593	281.	0.5152	55.8680	1203.	0.5202
129	3182.0	-3182.0	46.9904	281.	0.4296	46.6104	1203.	0.4340
130	3536.0	-3536.0	40.3282	6252.	0.5061	39.8842	281.	0.3646
131	3677.0	-3677.0	38.3988	6252.	0.4819	37.5209	281.	0.3430
132	191.0	-462.0	616.0974	1472.	5.7369	602.7131	6994.	6.3396
133	383.0	-924.0	318.7917	564.	2.6899	318.0686	568.	2.7309
134	574.0	-1386.0	214.2987	564.	1.8082	213.7451	568.	1.8352
135	765.0	-1848.0	151.8947	564.	1.2816	151.4631	568.	1.3004
136	957.0	-2310.0	112.7728	564.	0.9515	112.4279	568.	0.9653
137	1148.0	-2772.0	87.1716	564.	0.7355	86.8885	568.	0.7460
138	1339.0	-3234.0	69.8770	564.	0.5896	69.6372	568.	0.5979
139	1531.0	-3696.0	57.4092	564.	0.4844	57.2024	568.	0.4911
140	1722.0	-4157.0	48.1559	564.	0.4063	47.9749	568.	0.4119
141	1913.0	-4619.0	41.0597	564.	0.3464	40.8994	568.	0.3512
142	2105.0	-5081.0	35.4852	564.	0.2994	35.3418	568.	0.3034
143	2296.0	-5543.0	31.0379	564.	0.2619	30.9085	568.	0.2654
144	2487.0	-6005.0	27.4201	564.	0.2314	27.3025	568.	0.2344
145	2679.0	-6467.0	24.4256	564.	0.2061	24.3177	568.	0.2088
146	2870.0	-6929.0	21.9300	564.	0.1850	21.8304	568.	0.1874
147	3061.0	-7391.0	19.8203	564.	0.1672	19.7272	568.	0.1694
148	0.0	-500.0	738.3401	5165.	8.3206	736.3033	6069.	9.2160
149	0.0	-1000.0	407.7703	5165.	4.5953	366.8416	6069.	4.5916
150	0.0	-1500.0	290.9490	5165.	3.2788	203.9761	6069.	2.5531
151	0.0	-2000.0	218.0005	5165.	2.4567	145.3064	56.	1.2261
152	0.0	-2500.0	169.2325	5165.	1.9071	108.5881	56.	0.9162
153	0.0	-3000.0	134.5167	5165.	1.5159	84.2234	56.	0.7107
154	0.0	-3500.0	109.2566	5165.	1.2313	67.6493	56.	0.5708
155	0.0	-4000.0	90.4879	5165.	1.0197	55.6696	56.	0.4697
156	0.0	-4500.0	76.5620	5165.	0.8628	46.7180	56.	0.3942
157	0.0	-5000.0	65.6884	5165.	0.7403	39.8476	56.	0.3362
158	0.0	-5500.0	57.0256	5165.	0.6426	35.2078	5916.	0.4702
159	0.0	-6000.0	50.0135	5165.	0.5636	32.1755	5916.	0.4297
160	0.0	-6500.0	44.2564	5165.	0.4987	29.7594	5916.	0.3974
161	0.0	-7000.0	39.4699	5165.	0.4448	27.7803	5916.	0.3710
162	0.0	-7500.0	35.4455	5165.	0.3994	26.1186	5916.	0.3488
163	0.0	-8000.0	32.0277	5165.	0.3609	24.6935	5916.	0.3298
164	0.0	-8500.0	29.0990	5165.	0.3279	23.4497	5916.	0.3132
165	0.0	-9000.0	26.5689	5165.	0.2994	22.3485	5916.	0.2985
166	-191.0	-462.0	617.4992	7440.	5.7500	613.0800	1321.	5.6565
167	-383.0	-924.0	316.5582	1327.	2.8163	314.5553	137.	2.9290
168	-574.0	-1386.0	212.5892	1327.	1.8913	211.0581	137.	1.9653

169	-765.0	-1848.0	150.5624	1327.	1.3395	149.3702	137.	1.3909
170	-957.0	-2310.0	111.7086	1327.	0.9938	110.8927	1331.	1.0046
171	-1148.0	-2772.0	86.2984	1327.	0.7678	85.7034	1331.	0.7764
172	-1339.0	-3234.0	69.1373	1327.	0.6151	68.6736	1331.	0.6221
173	-1531.0	-3696.0	56.7715	1327.	0.5051	56.4351	1331.	0.5113
174	-1722.0	-4157.0	47.5979	1327.	0.4235	47.3260	1331.	0.4287
175	-1913.0	-4619.0	40.5657	1327.	0.3609	40.3286	1331.	0.3653
176	-2105.0	-5081.0	35.0435	1327.	0.3118	34.8545	1331.	0.3158
177	-2296.0	-5543.0	30.6394	1327.	0.2726	30.4682	1331.	0.2760
178	-2487.0	-6005.0	27.0579	1327.	0.2407	26.9013	1331.	0.2437
179	-2679.0	-6467.0	24.0940	1327.	0.2144	23.9623	1331.	0.2171
180	-2870.0	-6929.0	21.6246	1327.	0.1924	21.5017	1331.	0.1948
181	-3061.0	-7391.0	19.5370	1327.	0.1738	19.4219	1331.	0.1759
182	-3253.0	-7853.0	17.7494	1327.	0.1579	17.6492	1331.	0.1599
183	-3444.0	-8315.0	16.2146	1327.	0.1443	16.1197	1331.	0.1460
184	-3635.0	-8777.0	14.8821	1327.	0.1324	14.7919	1331.	0.1340
185	-3827.0	-9239.0	13.7144	1327.	0.1220	13.6341	1331.	0.1235
186	-3942.0	-9516.0	13.0934	1327.	0.1165	13.0176	1331.	0.1179
187	-354.0	-354.0	812.3538	1277.	7.0990	797.4262	146.	7.2902
188	-1061.0	-1061.0	223.2671	876.	2.2828	222.9758	146.	2.0385
189	-1414.0	-1414.0	152.2771	876.	1.5570	149.1968	146.	1.3640
190	-1768.0	-1768.0	110.6331	876.	1.1312	106.9790	146.	0.9780
191	-2121.0	-2121.0	84.3864	876.	0.8628	81.7686	148.	0.7829
192	-2475.0	-2475.0	66.9575	876.	0.6846	65.0454	148.	0.6228
193	-2828.0	-2828.0	54.6492	876.	0.5588	53.2107	148.	0.5095
194	-3182.0	-3182.0	45.5503	876.	0.4657	44.4488	148.	0.4256
195	-3536.0	-3536.0	38.6457	876.	0.3951	37.7844	148.	0.3618
196	-3889.0	-3889.0	33.2801	876.	0.3403	32.5995	148.	0.3121
197	-4243.0	-4243.0	29.0046	876.	0.2966	28.9630	3312.	0.3952
198	-4596.0	-4596.0	26.7231	3312.	0.3646	25.5554	876.	0.2613
199	-4950.0	-4950.0	24.8876	3312.	0.3396	22.7160	876.	0.2323
200	-5303.0	-5303.0	23.3547	3312.	0.3187	20.3633	876.	0.2082
201	-5657.0	-5657.0	22.0400	3312.	0.3007	18.3827	876.	0.1880
202	-5940.0	-5940.0	21.1136	3312.	0.2881	17.0208	876.	0.1740
203	-462.0	-191.0	1414.5016	5662.	17.0441	1006.4012	2952.	11.7376
204	-1386.0	-574.0	381.6245	5662.	4.5984	235.1331	2952.	2.7424
205	-1848.0	-765.0	254.8012	5662.	3.0702	153.6703	2952.	1.7923
206	-2310.0	-957.0	183.4431	5662.	2.2104	109.0429	2952.	1.2718
207	-2772.0	-1148.0	139.2246	5662.	1.6776	81.7584	2952.	0.9535
208	-3234.0	-1339.0	109.5781	5662.	1.3204	64.1116	2952.	0.7477
209	-3696.0	-1531.0	88.5596	5662.	1.0671	52.0231	2410.	0.5775
210	-4157.0	-1722.0	73.6379	5662.	0.8873	43.2575	2410.	0.4802
211	-4619.0	-1913.0	62.3618	5662.	0.7514	36.6214	2410.	0.4065
212	-5081.0	-2105.0	53.4855	5662.	0.6445	32.5862	3310.	0.4268
213	-5543.0	-2296.0	46.5137	5662.	0.5605	29.6176	3310.	0.3879
214	-6005.0	-2487.0	40.8725	5662.	0.4925	27.2626	3310.	0.357[illegible]
215	-500.0	0.0	939.5303	226.	8.6685	937.3870	239.	8.8097
216	-1500.0	0.0	248.5833	2193.	2.4942	246.6335	2954.	2.8498
217	-2000.0	0.0	163.8611	2193.	1.6441	162.8398	2954.	1.8816
218	-2500.0	0.0	116.7411	2193.	1.1713	116.0800	2954.	1.3413
219	-3000.0	0.0	87.9125	2193.	0.8821	87.4219	2954.	1.0102
220	-3500.0	0.0	69.2026	2193.	0.6944	68.7960	2954.	0.7949
221	-4000.0	0.0	56.1503	2193.	0.5634	55.7964	2954.	0.6447
222	-4300.0	0.0	50.1050	2193.	0.5027	49.7750	2954.	0.575[illegible]
223	-462.0	191.0	1043.1744	1153.	9.9877	1037.6034	7499.	9.8424
224	-1386.0	574.0	252.8190	1153.	2.4206	242.9040	7499.	2.304[illegible]
225	-1848.0	765.0	167.1724	1153.	1.6006	159.6841	2983.	1.9148
226	-2310.0	957.0	119.5460	1153.	1.1446	113.7958	2983.	1.364[illegible]
227	-2772.0	1148.0	90.2818	1153.	0.8644	85.6797	2983.	1.027[illegible]
228	-3234.0	1339.0	71.2362	1153.	0.6820	67.4062	2983.	0.808[illegible]

229	-3696.0	1531.0	57.9258	1153.	0.5546	54.6636	2983.	0.6555
230	-4157.0	1722.0	48.2070	1153.	0.4616	45.3797	2983.	0.5442
231	-4619.0	1913.0	40.8442	1153.	0.3911	38.3604	2983.	0.4600
232	-354.0	354.0	800.9283	7915.	7.5272	800.9283	8463.	7.5272
233	-1061.0	1061.0	222.9290	7709.	2.5283	221.3115	1396.	2.1189
234	-1414.0	1414.0	151.0383	7709.	1.7129	149.0119	2031.	1.9041
235	-1768.0	1768.0	109.1935	7709.	1.2384	108.0371	2031.	1.3805
236	-2121.0	2121.0	82.9804	7709.	0.9411	82.2454	2031.	1.0509
237	-2475.0	2475.0	65.6476	7709.	0.7445	65.1248	2031.	0.8322
238	-2828.0	2828.0	53.4541	7709.	0.6062	53.0527	2031.	0.6779
239	-3182.0	3182.0	44.4668	7709.	0.5043	44.1460	2031.	0.5641
240	-3536.0	3536.0	37.6626	7709.	0.4271	37.3931	2031.	0.4778
241	-3889.0	3889.0	32.3977	6014.	0.5328	32.3881	7709.	0.3673
242	-4243.0	4243.0	29.5906	6014.	0.4866	28.1837	7709.	0.3196
243	-4596.0	4596.0	27.3744	6014.	0.4502	24.7964	7709.	0.2812
244	-4950.0	4950.0	25.5631	6014.	0.4204	22.0065	7709.	0.2496
245	-5303.0	5303.0	24.0523	6014.	0.3955	19.6907	7709.	0.2233
246	-5657.0	5657.0	22.7567	6014.	0.3742	17.7348	7709.	0.2011
247	-5940.0	5940.0	21.8430	6014.	0.3592	16.3840	7709.	0.1858
248	-191.0	462.0	881.3931	2.	6.6581	603.7068	1166.	6.6566
249	-574.0	1386.0	207.2637	7921.	1.9479	198.6354	7156.	2.4705
250	-765.0	1848.0	144.8630	7921.	1.3614	139.9538	7156.	1.7407
251	-957.0	2310.0	106.3709	7921.	0.9997	103.4996	7156.	1.2873
252	-1148.0	2772.0	81.6102	7921.	0.7670	79.6544	7156.	0.9907
253	-1339.0	3234.0	65.0353	7921.	0.6112	63.5642	7156.	0.7906
254	-1531.0	3696.0	53.1386	7921.	0.4994	52.0397	7156.	0.6472
255	-1722.0	4157.0	44.3864	7921.	0.4171	43.4895	7156.	0.5409
256	-1913.0	4619.0	37.7184	7921.	0.3545	36.9406	7156.	0.4594
257	-2105.0	5081.0	32.4750	7921.	0.3052	31.8306	7156.	0.3959
258	-2296.0	5543.0	28.3272	7921.	0.2662	27.7464	7156.	0.3451
259	-2487.0	6005.0	24.9652	7921.	0.2346	24.4329	7156.	0.3039
260	-2679.0	6467.0	22.1752	7921.	0.2084	21.7085	7156.	0.2700
261	-2870.0	6929.0	19.8686	7921.	0.1867	19.4324	7156.	0.2417
262	-2947.0	7114.0	19.0426	7921.	0.1790	18.9087	6012.	0.3489
263	-2105.0	5081.0	32.4750	7921.	0.3052	31.8306	7156.	0.3959
264	-1990.0	4804.0	35.4618	7921.	0.3333	34.7484	7156.	0.4322
265	-3061.0	7391.0	18.2992	6012.	0.3376	17.9197	7921.	0.1684
266	-3444.0	8315.0	16.5533	6012.	0.3054	14.8228	7921.	0.1393
267	-3482.0	8407.0	16.4025	6012.	0.3026	14.5630	7921.	0.1369
268	1061.0	3960.0	52.9965	1219.	0.5318	52.1109	1140.	0.4989
269	209.0	5996.0	28.1073	7733.	0.3401	27.4208	7169.	0.3567
270	-1705.0	-8021.0	25.2135	5166.	0.3280	22.0879	5929.	0.2747
271	-282.0	530.0	552.6987	7921.	5.1943	551.3834	1397.	5.2791
272	6431.0	1485.0	30.2800	401.	0.2844	26.6256	420.	0.2526
273	8682.0	1688.0	23.0202	401.	0.2162	21.7463	8329.	0.2549
274	9976.0	698.0	18.2635	388.	0.1783	16.2809	6064.	0.2677
275	5936.0	-3709.0	31.4982	1195.	0.3073	29.3568	2888.	0.3329
276	14518.0	3352.0	14.4743	401.	0.1359	12.2718	6063.	0.2157
277	-4852.0	-682.0	41.7645	170.	0.3784	41.0591	7686.	0.3968

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TOP 50 TABLE FOR 8 HOUR AVERAGES

RANK	RECEPTOR	X-COORDINATE	Y-COORDINATE	ENDING HOUR	CONCENTRATION	DEPOSITION
1	215	-500.0	0.0	240	686.2486	6.9464
2	110	462.0	-191.0	1984	684.4401	8.1006

Highest 1 hr

Receptors**		Particulate Concentrations (ug/m3)					Maximum
X	Y	1987	1988	1989	1990	1991	
(meters)	(meters)						
0	500	597.0994	603.6694	602.9597	600.7173	785.9926	785.9926
0	1000	288.8865	295.1698	293.0536	293.4647	292.3861	295.1698
0	1500	191.4411	200.1581	199.8862	200.2055	198.0097	200.2055
0	2000	134.2623	143.1236	143.6353	143.8875	141.4359	143.8875
0	2500	98.8133	106.8342	107.5834	107.7865	105.4798	107.7865
0	3000	75.7656	82.7799	83.557	83.7245	81.6665	83.7245
0	3500	60.2962	66.4243	67.1573	67.2996	65.4806	67.2996
0	4000	49.3607	54.6122	55.2804	55.4032	53.7985	55.4032
0	4500	41.3808	45.7926	46.3947	46.5022	45.0811	46.5022
0	5000	35.2569	39.0282	39.5694	39.6646	38.3987	39.6646
0	5500	30.4503	33.7206	34.2076	34.2927	33.1581	34.2927
0	6000	26.6042	29.4742	29.9138	29.9906	28.9672	29.9906
0	6500	23.4751	26.0195	26.4179	26.4877	26.698	26.698
0	7000	20.8925	23.1678	23.5304	23.5942	24.937	24.937
0	7500	18.7337	20.7839	21.1153	21.1739	23.4593	23.4593
0	8000	16.9092	18.7688	19.0728	19.127	22.1924	22.1924
0	8500	15.3519	17.0484	17.3284	17.3787	21.0866	21.0866
0	9000	14.011	15.5667	15.8254	15.8723	20.1073	20.1073
0	9500	12.8473	14.2804	14.5204	14.5643	19.2298	19.2298
0	9800	12.2211	13.5882	13.8179	13.86	18.7446	18.7446
191	462	627.7671	618.8269	617.479	599.4878	820.2772	820.2772
383	924	303.6947	318.433	306.5203	313.7204	314.8911	318.433
574	1386	199.5742	214.024	195.5953	210.4204	211.1851	214.024
765	1848	139.6498	151.681	136.0662	148.874	149.6967	151.681
957	2310	102.9512	112.6125	100.4152	110.3613	111.2653	112.6125
1148	2772	79.0313	87.1037	77.1405	85.1939	86.0091	87.1037
1339	3234	62.9737	69.9933	61.449	68.2024	68.9326	69.9933
1531	3696	51.5439	57.838	50.2265	55.9662	56.6584	57.838
1722	4157	43.0537	49.0212	41.9119	46.8938	47.5213	49.0212
1913	4619	36.5521	42.4565	35.5516	40.578	40.5015	42.4565
2105	5081	31.5013	37.4668	30.5943	36.4905	35.0091	37.4668
2296	5543	27.449	33.619	26.6365	33.3002	30.6076	33.619
2487	6005	24.1664	30.5852	23.4289	30.7467	27.028	30.7467
2679	6467	21.4774	28.1372	20.794	28.6545	24.3584	28.6545
2870	6929	19.2235	26.1392	18.5947	26.8889	22.9099	26.8889
3061	7391	17.3205	24.4713	16.741	25.374	21.6687	25.374
3253	7853	15.7112	23.0487	15.1651	24.0568	20.5899	24.0568
3444	8315	14.3187	21.8272	14.0819	22.8875	19.6313	22.8875
3635	8777	13.1122	20.7585	13.2105	21.842	18.7731	21.842
3827	9239	12.0669	19.8068	12.4488	20.9017	17.9998	20.9017
4018	9701	11.1559	18.9528	11.7976	20.0352	17.2805	20.0352
4210	10163	10.3559	18.1763	11.2133	19.2457	16.624	19.2457
354	354	789.2725	815.5934	796.6077	794.7623	809.0028	815.5934
707	707	375.503	375.9735	361.573	362.6872	374.8272	375.9735
1061	1061	233.4428	233.7758	219.7548	224.399	230.5389	233.7758
1414	1414	159.899	160.1499	148.7624	153.1019	156.7185	160.1499
1768	1768	116.5484	116.7453	107.5637	111.2278	113.618	116.7453
2121	2121	89.1361	89.2959	81.7865	84.8237	86.5534	89.2959
2475	2475	70.9016	71.036	65.0006	67.2824	68.6378	71.036
2828	2828	57.998	58.1134	53.203	54.8966	56.0109	58.1134
3182	3182	48.4452	49.1526	44.4613	45.7464	46.6873	49.1526
3536	3536	41.1793	43.1828	37.8135	38.8002	39.6171	43.1828
3889	3889	35.5268	38.7166	32.6362	33.4059	34.1281	38.7166

Highest 1 hr

Receptors**		Particulate Concentrations (ug/m3)					Maximum
X	Y	1987	1988	1989	1990	1991	
(meters)	(meters)						
4243	4243	31.0108	35.247	28.5014	29.1034	29.7465	35.247
4596	4596	27.3588	32.4935	25.1566	25.6294	26.2118	32.4935
4950	4950	24.3431	30.2328	22.3936	22.765	23.2968	30.2328
5303	5303	21.834	28.3425	20.0941	20.385	20.8744	28.3425
5657	5657	19.7101	26.72	18.1469	18.3731	18.826	26.72
6010	6010	17.9041	25.3115	16.4907	16.7544	17.0859	25.3115
6364	6364	16.3457	24.0646	15.0611	15.541	16.0678	24.0646
6718	6718	14.9942	22.9472	13.8184	14.5121	15.3024	22.9472
7071	7071	13.818	21.9463	12.7391	13.6389	14.6148	21.9463
7425	7425	12.7968	21.0213	11.8025	12.884	13.9834	21.0213
7778	7778	11.8958	20.182	10.9738	12.2249	13.4086	20.182
8132	8132	11.0908	19.4097	10.2352	11.6459	12.8803	19.4097
8415	8415	10.5084	18.8363	9.7008	11.2311	12.4884	18.8363
462	191	1064.019	1060.202	1230.247	994.9078	1043.75	1230.247
924	383	437.9668	443.373	439.5914	410.3771	434.5343	443.373
1386	574	254.7179	258.1917	255.7935	236.5601	252.4477	258.1917
1848	765	168.6801	171.0874	169.4642	155.5083	167.0266	171.0874
2310	957	120.658	122.5624	121.2617	110.5568	119.3855	122.5624
2772	1148	91.2378	92.703	91.7227	83.154	90.2164	92.703
3234	1339	72.0712	73.2569	72.4762	65.5859	71.219	73.2569
3696	1531	58.6148	59.6515	58.9605	53.3222	57.8877	59.6515
4157	1722	48.8101	49.7063	49.1104	44.389	48.1786	49.7063
4619	1913	41.3897	42.1643	41.6542	37.6298	40.8337	42.1643
5081	2105	35.6131	36.3155	35.8486	32.3693	35.1183	36.3155
5543	2296	31.0397	31.6621	31.2515	28.2054	30.595	31.6621
6005	2487	27.3449	27.9022	27.5369	24.8421	26.9419	27.9022
6467	2679	24.301	24.8174	24.4762	23.0306	23.9333	24.8174
6929	2870	21.7746	22.2439	21.9355	21.5929	21.4371	22.2439
7391	3061	19.6455	20.0748	19.794	20.3641	19.334	20.3641
7853	3253	17.824	18.2271	17.9617	19.2872	17.5353	19.2872
8315	3444	16.2663	16.6387	16.3946	18.3452	15.9976	18.3452
8777	3635	14.9164	15.262	15.0363	17.5048	14.6652	17.5048
9239	3827	13.7359	14.061	13.8483	16.7432	13.5004	16.7432
9701	4018	12.715	13.0222	12.821	16.0454	12.4929	16.0454
10163	4210	11.8119	12.2124	11.9122	15.4071	11.6019	15.4071
10625	4401	11.0107	11.7029	11.1058	14.8251	10.8115	14.8251
11087	4592	10.2936	11.2377	10.3839	14.2888	10.1042	14.2888
11548	4784	9.6472	10.8244	9.7331	13.79	9.4669	13.79
12010	4975	9.0654	10.4298	9.1472	13.3299	8.9001	13.3299
12472	5166	8.5381	10.0644	8.6161	12.9017	8.5149	12.9017
12842	5319	8.1506	9.7909	8.2257	12.5793	8.2347	12.5793
500	0	941.5669	964.8463	966.7902	934.0806	955.5472	966.7902
1500	0	251.716	246.9127	260.568	236.6691	257.14	260.568
2000	0	166.1342	162.1749	172.5771	154.159	170.5009	172.5771
2500	0	118.4846	115.5706	123.4386	108.9928	122.1009	123.4386
3000	0	89.3072	87.0149	93.2789	81.7514	92.6838	93.2789
3500	0	70.3631	68.4578	73.6753	64.4063	73.9762	73.9762
4000	0	57.1387	55.5089	59.9652	52.2987	61.3331	61.3331
4500	0	47.4884	46.0669	49.9425	43.4638	52.4619	52.4619
5000	0	40.2087	38.9504	42.3692	36.7995	46.0303	46.0303
5500	0	34.5671	33.4401	36.4911	31.635	41.2152	41.2152
6000	0	30.0962	29.0863	32.104	27.8477	37.4957	37.4957
6500	0	26.48	26.7988	29.5717	25.5014	34.5359	34.5359
7000	0	23.5094	24.9302	27.5016	23.6187	32.1157	32.1157

Receptors**		Particulate Concentrations (ug/m3)					Maximum
X	Y	1987	1988	1989	1990	1991	
(meters)	(meters)						
7500	0	21.0458	23.3763	25.7684	22.0716	30.0888	30.0888
7700	0	20.1744	22.8219	25.1494	21.526	29.3649	29.3649
462	-191	1049.732	1058.547	1339.195	1157.722	1048.563	1339.195
924	-383	437.4113	441.6562	494.2787	435.257	437.5737	494.2787
1386	-574	254.3503	257.1616	254.7179	252.819	254.3508	257.1616
1848	-765	168.4122	170.4622	168.6801	167.1725	168.2876	170.4622
2310	-957	120.4517	122.0306	120.658	119.546	120.4045	122.0306
2772	-1148	91.0722	92.3405	91.2378	90.2818	90.9704	92.3405
3234	-1339	71.933	72.9922	72.0712	71.2362	71.8104	72.9922
3696	-1531	58.4968	59.4012	58.6148	57.9258	58.4159	59.4012
4157	-1722	48.7076	49.4935	48.8101	48.207	48.6326	49.4935
4619	-1913	41.2994	41.9917	41.3897	40.8442	41.2187	41.9917
5081	-2105	35.5327	36.1493	35.6131	35.1397	35.4731	36.1493
354	-354	795.6354	827.6622	818.6355	803.4502	813.2571	827.6622
707	-707	369.944	381.8918	381.119	382.629	376.2929	382.629
1061	-1061	225.4505	237.9716	237.3488	238.4951	231.5659	238.4951
1414	-1414	153.9144	163.3155	162.8719	163.7109	157.487	163.7109
1768	-1768	111.9129	119.2312	118.938	119.542	114.2178	119.542
2121	-2121	85.4227	91.3164	91.1276	91.5693	87.0386	91.5693
2475	-2475	67.8266	72.7364	72.6245	72.9494	69.0446	72.9494
2828	-2828	55.3934	59.5742	59.5129	59.7573	56.3593	59.7573
3182	-3182	46.1974	49.8199	49.7883	51.0239	46.9904	51.0239
3536	-3536	39.2154	42.3937	42.3865	44.8324	40.3282	44.8324
3677	-3677	36.8922	39.9191	39.9194	42.8258	38.3988	42.8258
191	-462	605.0127	685.6381	765.6607	705.5349	616.0974	765.6607
383	-924	311.641	314.9656	313.7087	312.6994	318.7917	318.7917
574	-1386	208.4281	211.3716	210.2825	208.7679	214.2987	214.2987
765	-1848	147.325	149.6143	148.9934	147.5891	151.8947	151.8947
957	-2310	109.1266	110.9518	110.7031	109.3371	112.7728	112.7728
1148	-2772	84.1826	85.7035	85.5479	84.3549	87.1716	87.1716
1339	-3234	67.3472	68.6737	68.5419	67.4928	69.877	69.877
1531	-3696	55.2301	56.4351	56.3215	55.9719	57.4092	57.4092
1722	-4157	46.2508	47.326	47.2266	48.1301	48.1559	48.1559
1913	-4619	39.3741	40.3286	40.2407	42.3513	41.0597	42.3513
2105	-5081	33.9791	34.8545	34.7759	38.0186	35.4852	38.0186
2296	-5543	29.6799	30.4682	30.7415	34.6145	31.0379	34.6145
2487	-6005	26.1865	26.9013	28.1822	31.8928	27.4201	31.8928
2679	-6467	23.2978	23.9623	26.1179	29.6747	24.4256	29.6747
2870	-6929	20.8927	21.5017	24.4282	27.7925	21.93	27.7925
3061	-7391	18.8607	19.4219	23.009	26.175	19.8203	26.175
0	-500	595.2517	831.6105	771.3234	616.028	738.3401	831.6105
0	-1000	294.3958	416.9478	387.6266	286.6382	407.7703	416.9478
0	-1500	199.5604	253.3577	217.2644	188.6191	290.949	290.949
0	-2000	142.6539	192.0944	147.6913	134.0864	218.0005	218.0005
0	-2500	106.457	150.7206	110.6244	99.6003	169.2325	169.2325
0	-3000	82.4697	120.8372	86.2986	76.8463	134.5167	134.5167
0	-3500	66.1614	98.826	70.1424	61.4057	109.2566	109.2566
0	-4000	54.3854	82.3117	58.8617	50.2934	90.4879	90.4879
0	-4500	45.5942	69.9811	50.7669	42.0233	76.562	76.562
0	-5000	38.8526	60.2898	44.798	35.6992	65.6884	65.6884
0	-5500	33.5637	52.5268	40.2696	30.7505	57.0256	57.0256
0	-6000	29.3327	46.214	36.7335	26.8012	50.0135	50.0135
0	-6500	25.891	41.0104	33.8946	23.5959	44.2564	44.2564
0	-7000	23.0504	36.6689	31.5562	20.956	39.4699	39.4699

Highest 1 hr

Receptors**		Particulate Concentrations (ug/m3)					Maximum
X	Y	1987	1988	1989	1990	1991	
(meters)	(meters)						
0	-7500	20.676	33.0073	29.5861	18.7538	35.4455	35.4455
0	-8000	18.669	29.8891	27.8939	16.8959	32.0277	32.0277
0	-8500	16.9558	27.2102	26.4168	15.3129	29.099	29.099
0	-9000	15.4805	24.8906	25.1103	13.952	26.5689	26.5689
-191	-462	609.3265	649.9282	635.7765	612.3884	617.4992	649.9282
-383	-924	311.2006	306.7205	313.7044	311.5554	316.5582	316.5582
-574	-1386	207.3911	204.9599	207.0467	208.7679	212.5892	212.5892
-765	-1848	146.5195	144.8544	146.4755	147.5891	150.5624	150.5624
-957	-2310	108.4851	107.3994	108.6923	109.3371	111.7086	111.7086
-1148	-2772	83.6575	82.8411	83.8996	84.3549	86.2984	86.2984
-1339	-3234	66.9034	66.2525	67.1472	67.4929	69.1373	69.1373
-1531	-3696	54.8484	54.3497	55.1198	55.3555	56.7715	56.7715
-1722	-4157	45.9175	45.5036	46.1761	46.3602	47.5979	47.5979
-1913	-4619	39.0796	38.7175	39.3117	39.4709	40.5657	40.5657
-2105	-5081	33.7162	33.4151	33.9456	34.0654	35.0435	35.0435
-2296	-5543	29.4432	29.1713	29.649	29.7577	30.6394	30.6394
-2487	-6005	25.9717	25.7241	26.1576	26.2572	27.0579	27.0579
-2679	-6467	23.4527	22.8866	23.2825	23.3623	24.094	24.094
-2870	-6929	21.7918	20.5132	20.8768	20.9519	21.6246	21.7918
-3061	-7391	20.3952	18.509	18.8447	18.9155	19.537	20.3952
-3253	-7853	19.2205	16.8022	17.1135	17.1727	17.7494	19.2205
-3444	-8315	18.179	15.3309	15.6207	15.6773	16.2146	18.179
-3635	-8777	17.2613	14.0546	14.3253	14.3796	14.8821	17.2613
-3827	-9239	16.4591	13.1138	13.1963	13.243	13.7144	16.4591
-3942	-9516	16.0116	12.7064	12.6973	12.6383	13.0934	16.0116
-354	-354	822.1488	965.0953	798.1943	804.4777	812.3538	965.0953
-1061	-1061	227.8375	308.696	226.4223	232.7644	223.2671	308.696
-1414	-1414	155.7068	210.3759	154.6195	159.388	152.2771	210.3759
-1768	-1768	113.3155	152.9018	112.4138	116.1476	110.6331	152.9018
-2121	-2121	86.5595	116.2519	85.7836	88.8107	84.3864	116.2519
-2475	-2475	68.7809	91.403	68.0869	70.628	66.9575	91.403
-2828	-2828	56.2113	73.9244	55.5851	57.7632	54.6492	73.9244
-3182	-3182	46.9092	61.3548	46.3448	48.2406	45.5503	61.3548
-3536	-3536	39.843	51.8359	39.3271	40.9987	38.6457	51.8359
-3889	-3889	34.3458	44.4481	33.8752	35.3657	33.2801	44.4481
-4243	-4243	29.9597	38.5668	29.525	30.8657	29.0046	38.5668
-4596	-4596	26.4149	33.8259	26.0113	27.2271	26.7231	33.8259
-4950	-4950	23.4893	29.9241	23.1132	24.2228	24.8876	29.9241
-5303	-5303	21.0563	26.6889	20.7045	21.7234	23.3547	26.6889
-5657	-5657	18.9978	23.9598	18.6676	19.608	22.04	23.9598
-5940	-5940	17.5741	22.0776	17.2596	18.1444	21.1136	22.0776
-462	-191	1032.949	1203.727	997.2476	1019.216	1414.502	1414.502
-1386	-574	249.5695	244.8685	238.324	227.1042	381.6245	381.6245
-1848	-765	164.8098	160.6848	156.664	146.6776	254.8012	254.8012
-2310	-957	117.729	114.4073	111.484	103.3716	183.4431	183.4431
-2772	-1148	88.8257	86.0344	83.8346	77.0673	139.2246	139.2246
-3234	-1339	70.0228	67.6589	65.8748	60.4483	109.5781	109.5781
-3696	-1531	56.8911	54.9148	53.3625	50.0594	88.5596	88.5596
-4157	-1722	47.3092	45.6102	44.2546	42.817	73.6379	73.6379
-4619	-1913	40.0547	38.5621	37.3741	37.5746	62.3618	62.3618
-5081	-2105	34.4372	33.1381	32.0569	33.6466	53.4855	53.4855
-5543	-2296	29.9743	28.8179	27.8408	30.6287	46.5137	46.5137
-6005	-2487	26.3731	25.3296	24.4447	28.2347	40.8725	40.8725
-500	0	1312.065	961.1075	937.1656	944.6625	939.5303	1312.065

Highest 1 hr

Receptors**		Particulate Concentrations (ug/m3)					Maximum
X	Y	1987	1988	1989	1990	1991	
(meters)	(meters)						
-1500	0	395.266	258.5658	250.1806	255.6093	248.5833	395.266
-2000	0	262.2235	171.1173	165.0197	169.3682	163.8611	262.2235
-2500	0	188.2281	122.3145	117.6294	121.093	116.7411	188.2281
-3000	0	142.2623	92.3766	88.6229	91.4344	87.9125	142.2623
-3500	0	111.6461	72.9219	69.7936	72.1357	69.2026	111.6461
-4000	0	90.2943	59.3216	56.6535	58.6408	56.1503	90.2943
-4300	0	80.6255	53.0117	50.5658	52.3804	50.105	80.6255
-462	191	1033.173	1049.148	1028.154	1055.097	1043.174	1055.097
-1386	574	243.3766	254.7231	241.8247	248.3006	252.819	254.7231
-1848	765	159.6076	168.5587	158.4878	163.5673	167.1724	168.5587
-2310	957	113.582	120.6133	112.7246	116.4873	119.546	120.6133
-2772	1148	85.3755	91.1379	84.6914	87.8913	90.2818	91.1379
-3234	1339	67.1114	71.9502	66.5433	69.3174	71.2362	71.9502
-3696	1531	54.4486	58.5353	53.9651	56.2631	57.9258	58.5353
-4157	1722	45.2064	48.7363	44.7878	46.7947	48.207	48.7363
-4619	1913	38.2076	41.31	37.8403	39.6463	40.8442	41.31
-354	354	801.5425	817.1396	780.8384	805.7343	800.9283	817.1396
-1061	1061	228.3829	213.8848	224.0078	228.7523	222.929	228.7523
-1414	1414	156.0919	145.4333	152.8324	155.3828	151.0383	156.0919
-1768	1768	113.5655	105.944	111.067	112.5762	109.1935	113.5655
-2121	2121	86.7165	80.9857	84.7376	85.711	82.9804	86.7165
-2475	2475	68.8693	64.3873	67.252	67.932	65.6476	68.8693
-2828	2828	56.2552	52.6459	54.9013	55.4067	53.4541	56.2552
-3182	3182	46.9276	43.9568	45.7694	46.1621	44.4668	46.9276
-3536	3536	39.8407	37.3501	38.8382	39.1544	37.6626	39.8407
-3889	3889	34.3328	32.2119	33.4502	33.7158	32.3977	34.3328
-4243	4243	29.9363	28.108	29.1544	29.3759	29.5906	29.9363
-4596	4596	26.3842	24.7902	25.685	25.8759	27.3744	27.3744
-4950	4950	23.4533	22.0512	22.8238	22.9904	25.5631	25.5631
-5303	5303	21.0166	19.7728	20.4465	20.5931	24.0523	24.0523
-5657	5657	18.9555	17.8446	18.4375	18.5665	22.7567	22.7567
-5940	5940	17.5304	16.5108	17.0498	17.1659	21.843	21.843
-191	462	613.0801	602.4427	607.3737	610.981	881.3931	881.3931
-574	1386	208.4282	206.3619	181.6894	210.587	207.2637	210.587
-765	1848	147.3347	145.9434	125.7245	149.2307	144.863	149.2307
-957	2310	109.2299	108.2677	92.5628	110.8927	106.3709	110.8927
-1148	2772	84.6097	83.5519	70.9746	85.7034	81.6102	85.7034
-1339	3234	68.3632	66.8532	56.49	68.6737	65.0353	68.6737
-1531	3696	57.0629	54.8667	46.1893	56.4351	53.1386	57.0629
-1722	4157	49.0309	45.955	38.5446	47.326	44.3864	49.0309
-1913	4619	43.1389	39.1163	32.6952	40.3286	37.7184	43.1389
-2105	5081	38.6894	33.7711	28.1543	34.8545	32.475	38.6894
-2296	5543	35.2513	29.4919	24.5136	30.4682	28.3272	35.2513
-2487	6005	32.5112	26.0149	21.5664	26.9013	24.9652	32.5112
-2679	6467	30.2606	23.1522	19.1536	23.9623	22.1752	30.2606
-2870	6929	28.3843	20.7571	17.1322	21.5017	19.8686	28.3843
-2947	7114	27.7093	19.9088	16.4215	20.6297	19.0426	27.7093
-2105	5081	38.6894	33.7711	28.1543	34.8545	32.475	38.6894
-1990	4804	41.2086	36.8243	30.75	37.982	35.4618	41.2086
-3061	7391	26.7803	18.7342	15.4266	19.4219	18.2992	26.7803
-3444	8315	24.1482	15.5252	12.7381	16.1197	16.5533	24.1482
-3482	8407	23.92	15.254	12.5105	15.8404	16.4025	23.92
1061	3960	49.2599	51.6063	49.8753	51.5159	52.9965	52.9965
209	5996	26.9125	29.1984	29.6023	30.0684	28.1073	30.0684

Highest 1 hr

Receptors**		Particulate Concentrations (ug/m3)					Maximum
X	Y	1987	1988	1989	1990	1991	
(meters)	(meters)						
-1705	-8021	17.4244	18.4473	18.764	16.9265	25.2135	25.2135
-282	530	547.6346	540.5596	504.8555	542.5558	552.6987	552.6987
6431	1485	25.9882	28.1217	27.752	25.1881	30.28	30.28
8682	1688	15.8225	18.6146	17.4761	14.3998	23.0202	23.0202
9976	698	12.6673	14.4062	17.9502	12.0624	18.2635	18.2635
5936	-3709	23.3969	25.85	23.4449	26.7185	31.4982	31.4982
14518	3352	9.39	12.4176	13.5561	8.7934	14.4743	14.4743
-4852	-682	41.1672	41.8887	39.689	41.7008	41.7645	41.8887

ATTACHMENT 2
LABORATORY RESULTS OF SOIL SAMPLING AT THE DEMOLITION GROUNDS

Table II

Summary of ICP and AA Results (Wt. %)

NUS Sample ID:	NSWC-1	NSWC-2	NSWC-3	NSWC-4	NSWC-5
RJ Lee Group ID:	604281	604282	604283	604284	604285
Element:					
Al	0.537	0.462	0.278	0.505	0.176
Sb	<0.000495	<0.000498	<0.000496	<0.000500	<0.000500
As	0.00618	0.00515	0.00308	0.00549	0.00186
Ba	0.00347	0.00284	<0.000496	0.00237	<0.000500
Cr	0.00158	0.00130	0.00124	0.00209	0.000685
Cu	0.00814	0.0101	0.00318	0.00720	0.00145
Pb	0.00654	0.00439	0.00215	0.00419	0.00152
Hg	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
Ni	0.00210	0.00156	0.00104	0.00214	0.000655
Ag	<0.000495	<0.000498	<0.000496	<0.000500	0.00412
Sn	0.000638	<0.000498	<0.000496	<0.000500	<0.000500
Zr	0.00101	0.000882	0.000609	0.000793	0.000519
Ti	<0.000495	<0.000498	<0.000496	<0.000500	<0.000500

NUS Sample ID:	NSWC-6	NSWC-7	NSWC-8	NSWC-9	NSWC-10
RJ Lee Group ID:	604288	604287	604288	604289	604290
Element:					
Al	0.369	0.636	0.533	0.488	0.560
Sb	<0.000500	<0.000499	<0.000499	<0.000498	<0.000499
As	0.00417	0.00709	0.00529	0.00496	0.00541
Ba	<0.00127	0.00276	0.00214	0.00184	0.00313
Cr	0.00119	0.00144	0.00109	0.000973	0.00160
Cu	0.00788	0.0458	0.0102	0.0121	0.00281
Pb	0.00308	0.0112	0.00364	0.00478	0.00257
Hg	<0.000002	<0.000002	<0.000002	<0.000002	<0.000002
Ni	0.00191	0.00214	0.00225	0.00215	0.000880
Ag	<0.000500	<0.000499	<0.000499	0.00195	0.000909
Sn	<0.000500	<0.000499	<0.000499	<0.000498	<0.000499
Zr	0.00133	0.000807	0.000529	0.000900	0.000995
Ti	<0.000500	<0.000499	<0.000499	<0.000498	<0.000499

Table III

Summary of HPLC Analyses Results (ppb)

NUS Sample ID	RJ Lee Group Sample ID	HMX	RDX	DNB	Tetryl	TNT	DNT
NSWC-1	604281	N/D[1]	88.7	18.7[2]	N/D	194.6	45.6[2]
NSWC-2	604282	N/D	147.4	N/D	N/D	174.7	N/D
NSWC-3	604283	N/D	37.7[2]	N/D	N/D	67.6	27.2[2]
NSWC-4	604284	N/D	N/D	N/D	N/D	128.8	32.4[2]
NSWC-5	604285	N/D	N/D	N/D	N/D	14.4[2]	N/D
NSWC-6	604286	N/D	102.0	72.0	N/D	125.6	48.6[2]
NSWC-7	604287	N/D	116.4	N/D	N/D	157.5	44.1[2]
NSWC-8	604288	N/D	532.9	N/D	N/D	751.4	N/D
NSWC-9	604289	42.9[2]	631.5	N/D	N/D	624.0	N/D
NSWC-10	604290	N/D	N/D	N/D	N/D	N/D	N/D

[1] Not Detected
[2] Result was below lowest standard in calibration curve (i.e., <50 ppb)

Insoil Conc

	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT
(mg/kg)	70.9	34.7	458	20.9	112	0.02	-	-	-	-	-
(µg/kg)	-	-	-	-	-	-	42.9	631.5	72	751.4	48.6
	7.09E-05	3.47E-05	0.000458	2.09E-05	0.000112	2E-08	4.29E-08	6.32E-07	7.2E-08	7.51E-07	4.86E-08

1 hr avg conc

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X (meters)	Y (meters)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)
0	500	0.055727	0.027274	0.381206	0.016427	0.088031	1.57E-05	3.37E-05	0.000497	5.66E-05	0.00059	3.82E-05	785.9926
0	1000	0.020928	0.010242	0.143157	0.006169	0.033059	5.9E-06	1.27E-05	0.000187	2.13E-05	0.000222	1.43E-05	295.1698
0	1500	0.014195	0.006947	0.0971	0.004184	0.022423	4E-06	8.59E-06	0.000127	1.44E-05	0.00015	9.73E-06	200.2055
0	2000	0.010202	0.004993	0.069785	0.003007	0.016115	2.88E-06	6.17E-06	9.09E-05	1.04E-05	0.000108	6.99E-06	143.8875
0	2500	0.007642	0.00374	0.052276	0.002253	0.012072	2.16E-06	4.62E-06	6.81E-05	7.76E-06	8.09E-05	5.24E-06	107.7865
0	3000	0.005936	0.002905	0.040606	0.00175	0.009377	1.67E-06	3.59E-06	5.29E-05	6.03E-06	6.29E-05	4.07E-06	83.7245
0	3500	0.004772	0.002335	0.03264	0.001407	0.007538	1.35E-06	2.89E-06	4.25E-05	4.85E-06	5.05E-05	3.27E-06	67.2996
0	4000	0.003928	0.001922	0.026871	0.001158	0.006205	1.11E-06	2.38E-06	3.5E-05	3.99E-06	4.16E-05	2.69E-06	55.4032
0	4500	0.003297	0.001614	0.022554	0.000972	0.005208	9.3E-07	1.99E-06	2.94E-05	3.35E-06	3.49E-05	2.26E-06	46.5022
0	5000	0.002812	0.001376	0.019237	0.000829	0.004442	7.93E-07	1.7E-06	2.51E-05	2.86E-06	2.98E-05	1.93E-06	39.6646
0	5500	0.002431	0.00119	0.016632	0.000717	0.003841	6.86E-07	1.47E-06	2.17E-05	2.47E-06	2.58E-05	1.67E-06	34.2927
0	6000	0.002126	0.001041	0.014545	0.000627	0.003359	6E-07	1.29E-06	1.9E-05	2.16E-06	2.25E-05	1.46E-06	29.9906
0	6500	0.001893	0.000926	0.012949	0.000558	0.00299	5.34E-07	1.15E-06	1.69E-05	1.92E-06	2.01E-05	1.3E-06	26.698
0	7000	0.001768	0.000865	0.012094	0.000521	0.002793	4.99E-07	1.07E-06	1.58E-05	1.8E-06	1.87E-05	1.21E-06	24.937
0	7500	0.001663	0.000814	0.011378	0.00049	0.002627	4.69E-07	1.01E-06	1.48E-05	1.69E-06	1.76E-05	1.14E-06	23.4593
0	8000	0.001573	0.00077	0.010763	0.000464	0.002486	4.44E-07	9.52E-07	1.4E-05	1.6E-06	1.67E-05	1.08E-06	22.1924
0	8500	0.001495	0.000732	0.010227	0.000441	0.002362	4.22E-07	9.05E-07	1.33E-05	1.52E-06	1.58E-05	1.02E-06	21.0866
0	9000	0.001426	0.000698	0.009752	0.00042	0.002252	4.02E-07	8.63E-07	1.27E-05	1.45E-06	1.51E-05	9.77E-07	20.1073
0	9500	0.001363	0.000667	0.009326	0.000402	0.002154	3.85E-07	8.25E-07	1.22E-05	1.38E-06	1.44E-05	9.35E-07	19.2298
0	9800	0.001329	0.00065	0.009091	0.000392	0.002099	3.75E-07	8.04E-07	1.18E-05	1.35E-06	1.41E-05	9.11E-07	18.7446
191	462	0.058158	0.028464	0.397834	0.017144	0.091871	1.64E-05	3.52E-05	0.000518	5.91E-05	0.000616	3.99E-05	820.2772
383	924	0.022577	0.01105	0.15444	0.006655	0.035664	6.37E-06	1.37E-05	0.000201	2.29E-05	0.000239	1.55E-05	318.433
574	1386	0.015174	0.007427	0.103802	0.004473	0.023971	4.28E-06	9.18E-06	0.000135	1.54E-05	0.000161	1.04E-05	214.024
765	1848	0.010754	0.005263	0.073565	0.00317	0.016988	3.03E-06	6.51E-06	9.59E-05	1.09E-05	0.000114	7.37E-06	151.681
957	2310	0.007984	0.003908	0.054617	0.002354	0.012613	2.25E-06	4.83E-06	7.12E-05	8.11E-06	8.46E-05	5.47E-06	112.6125
1148	2772	0.006176	0.003022	0.042245	0.00182	0.009756	1.74E-06	3.74E-06	5.5E-05	6.27E-06	6.54E-05	4.23E-06	87.1037
1339	3234	0.004963	0.002429	0.033947	0.001463	0.007839	1.4E-06	3E-06	4.42E-05	5.04E-06	5.26E-05	3.4E-06	69.9933
1531	3696	0.004101	0.002007	0.028051	0.001209	0.006478	1.16E-06	2.48E-06	3.66E-05	4.16E-06	4.34E-05	2.81E-06	57.838
1722	4157	0.003476	0.001701	0.023775	0.001025	0.00549	9.8E-07	2.1E-06	3.1E-05	3.53E-06	3.68E-05	2.38E-06	49.0212
1913	4619	0.00301	0.001473	0.020591	0.000887	0.004755	8.49E-07	1.82E-06	2.68E-05	3.06E-06	3.19E-05	2.06E-06	42.4565
2105	5081	0.002656	0.0013	0.018171	0.000783	0.004196	7.49E-07	1.61E-06	2.37E-05	2.7E-06	2.81E-05	1.82E-06	37.4668
2296	5543	0.002384	0.001167	0.016305	0.000703	0.003765	6.72E-07	1.44E-06	2.12E-05	2.42E-06	2.52E-05	1.63E-06	33.619
2487	6005	0.00218	0.001067	0.014912	0.000643	0.003444	6.15E-07	1.32E-06	1.94E-05	2.21E-06	2.31E-05	1.49E-06	30.7467
2679	6467	0.002032	0.000994	0.013897	0.000599	0.003209	5.73E-07	1.23E-06	1.81E-05	2.06E-06	2.15E-05	1.39E-06	28.6545
2870	6929	0.001906	0.000933	0.013041	0.000562	0.003012	5.38E-07	1.15E-06	1.7E-05	1.94E-06	2.02E-05	1.31E-06	26.8889
3061	7391	0.001799	0.00088	0.012306	0.00053	0.002842	5.07E-07	1.09E-06	1.6E-05	1.83E-06	1.91E-05	1.23E-06	25.374

1 hr avg conc

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X	Y												
(meters)	(meters)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)
3253	7853	0.001706	0.000835	0.011668	0.000503	0.002694	4.81E-07	1.03E-06	1.52E-05	1.73E-06	1.81E-05	1.17E-06	24.0568
3444	8315	0.001623	0.000794	0.0111	0.000478	0.002563	4.58E-07	9.82E-07	1.45E-05	1.65E-06	1.72E-05	1.11E-06	22.8875
3635	8777	0.001549	0.000758	0.010593	0.000456	0.002446	4.37E-07	9.37E-07	1.38E-05	1.57E-06	1.64E-05	1.06E-06	21.842
3827	9239	0.001482	0.000725	0.010137	0.000437	0.002341	4.18E-07	8.97E-07	1.32E-05	1.5E-06	1.57E-05	1.02E-06	20.9017
4018	9701	0.00142	0.000695	0.009717	0.000419	0.002244	4.01E-07	8.6E-07	1.27E-05	1.44E-06	1.5E-05	9.74E-07	20.0352
4210	10163	0.001365	0.000668	0.009334	0.000402	0.002156	3.85E-07	8.26E-07	1.22E-05	1.39E-06	1.45E-05	9.35E-07	19.2457
354	354	0.057826	0.028301	0.395563	0.017046	0.091346	1.63E-05	3.5E-05	0.000515	5.87E-05	0.000613	3.96E-05	815.5934
707	707	0.026657	0.013046	0.182347	0.007858	0.042109	7.52E-06	1.61E-05	0.000238	2.71E-05	0.000282	1.83E-05	375.9735
1061	1061	0.016575	0.008112	0.113381	0.004886	0.026183	4.68E-06	1E-05	0.000148	1.68E-05	0.000176	1.14E-05	233.7758
1414	1414	0.011355	0.005557	0.077673	0.003347	0.017937	3.2E-06	6.87E-06	0.000101	1.15E-05	0.00012	7.78E-06	160.1499
1768	1768	0.008277	0.004051	0.056621	0.00244	0.013075	2.33E-06	5.01E-06	7.38E-05	8.41E-06	8.77E-05	5.67E-06	116.7453
2121	2121	0.006331	0.003099	0.043309	0.001866	0.010001	1.79E-06	3.83E-06	5.64E-05	6.43E-06	6.71E-05	4.34E-06	89.2959
2475	2475	0.005036	0.002465	0.034452	0.001485	0.007956	1.42E-06	3.05E-06	4.49E-05	5.11E-06	5.33E-05	3.45E-06	71.036
2828	2828	0.00412	0.002017	0.028185	0.001215	0.006509	1.16E-06	2.49E-06	3.67E-05	4.18E-06	4.36E-05	2.82E-06	58.1134
3182	3182	0.003485	0.001706	0.023839	0.001027	0.005505	9.83E-07	2.11E-06	3.11E-05	3.54E-06	3.69E-05	2.39E-06	49.1526
3536	3536	0.003062	0.001498	0.020944	0.000903	0.004836	8.64E-07	1.85E-06	2.73E-05	3.11E-06	3.24E-05	2.1E-06	43.1828
3889	3889	0.002745	0.001343	0.018778	0.000809	0.004336	7.74E-07	1.66E-06	2.45E-05	2.79E-06	2.91E-05	1.88E-06	38.7166
4243	4243	0.002499	0.001223	0.017095	0.000737	0.003948	7.05E-07	1.51E-06	2.23E-05	2.54E-06	2.65E-05	1.71E-06	35.247
4596	4596	0.002304	0.001128	0.015759	0.000679	0.003639	6.5E-07	1.39E-06	2.05E-05	2.34E-06	2.44E-05	1.58E-06	32.4935
4950	4950	0.002144	0.001049	0.014663	0.000632	0.003386	6.05E-07	1.3E-06	1.91E-05	2.18E-06	2.27E-05	1.47E-06	30.2328
5303	5303	0.002009	0.000983	0.013746	0.000592	0.003174	5.67E-07	1.22E-06	1.79E-05	2.04E-06	2.13E-05	1.38E-06	28.3425
5657	5657	0.001894	0.000927	0.012959	0.000558	0.002993	5.34E-07	1.15E-06	1.69E-05	1.92E-06	2.01E-05	1.3E-06	26.72
6010	6010	0.001795	0.000878	0.012276	0.000529	0.002835	5.06E-07	1.09E-06	1.6E-05	1.82E-06	1.9E-05	1.23E-06	25.3115
6364	6364	0.001706	0.000835	0.011671	0.000503	0.002695	4.81E-07	1.03E-06	1.52E-05	1.73E-06	1.81E-05	1.17E-06	24.0646
6718	6718	0.001627	0.000796	0.011129	0.00048	0.00257	4.59E-07	9.84E-07	1.45E-05	1.65E-06	1.72E-05	1.12E-06	22.9472
7071	7071	0.001556	0.000762	0.010644	0.000459	0.002458	4.39E-07	9.41E-07	1.39E-05	1.58E-06	1.65E-05	1.07E-06	21.9463
7425	7425	0.00149	0.000729	0.010195	0.000439	0.002354	4.2E-07	9.02E-07	1.33E-05	1.51E-06	1.58E-05	1.02E-06	21.0213
7778	7778	0.001431	0.0007	0.009788	0.000422	0.00226	4.04E-07	8.66E-07	1.28E-05	1.45E-06	1.52E-05	9.81E-07	20.182
8132	8132	0.001376	0.000674	0.009414	0.000406	0.002174	3.88E-07	8.33E-07	1.23E-05	1.4E-06	1.46E-05	9.43E-07	19.4097
8415	8415	0.001335	0.000654	0.009136	0.000394	0.00211	3.77E-07	8.08E-07	1.19E-05	1.36E-06	1.41E-05	9.15E-07	18.8363
462	191	0.087225	0.04269	0.59667	0.025712	0.137788	2.46E-05	5.28E-05	0.000778	8.86E-05	0.000924	5.98E-05	1230.247
924	383	0.031435	0.015385	0.215036	0.009266	0.049658	8.87E-06	1.9E-05	0.00028	3.19E-05	0.000333	2.15E-05	443.373
1386	574	0.018306	0.008959	0.125223	0.005396	0.028917	5.16E-06	1.11E-05	0.000163	1.86E-05	0.000194	1.25E-05	258.1917
1848	765	0.01213	0.005937	0.082977	0.003576	0.019162	3.42E-06	7.34E-06	0.000108	1.23E-05	0.000128	8.31E-06	171.0874
2310	957	0.00869	0.004253	0.059443	0.002562	0.013727	2.45E-06	5.26E-06	7.75E-05	8.82E-06	9.2E-05	5.96E-06	122.5624
2772	1148	0.006573	0.003217	0.044961	0.001937	0.010383	1.85E-06	3.98E-06	5.86E-05	6.67E-06	6.96E-05	4.51E-06	92.703

1 hr avg conc

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X	Y												
(meters)	(meters)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)
3234	1339	0.005194	0.002542	0.03553	0.001531	0.008205	1.47E-06	3.14E-06	4.63E-05	5.27E-06	5.5E-05	3.56E-06	73.2569
3696	1531	0.004229	0.00207	0.028931	0.001247	0.006681	1.19E-06	2.56E-06	3.77E-05	4.29E-06	4.48E-05	2.9E-06	59.6515
4157	1722	0.003524	0.001725	0.024108	0.001039	0.005567	9.94E-07	2.13E-06	3.14E-05	3.58E-06	3.73E-05	2.42E-06	49.7063
4619	1913	0.002989	0.001463	0.02045	0.000881	0.004722	8.43E-07	1.81E-06	2.66E-05	3.04E-06	3.17E-05	2.05E-06	42.1643
5081	2105	0.002575	0.00126	0.017613	0.000759	0.004067	7.26E-07	1.56E-06	2.3E-05	2.61E-06	2.73E-05	1.76E-06	36.3155
5543	2296	0.002245	0.001099	0.015356	0.000662	0.003546	6.33E-07	1.36E-06	2E-05	2.28E-06	2.38E-05	1.54E-06	31.6621
6005	2487	0.001978	0.000968	0.013533	0.000583	0.003125	5.58E-07	1.2E-06	1.76E-05	2.01E-06	2.1E-05	1.36E-06	27.9022
6467	2679	0.00176	0.000861	0.012036	0.000519	0.00278	4.96E-07	1.06E-06	1.57E-05	1.79E-06	1.86E-05	1.21E-06	24.8174
6929	2870	0.001577	0.000772	0.010788	0.000465	0.002491	4.45E-07	9.54E-07	1.41E-05	1.6E-06	1.67E-05	1.08E-06	22.2439
7391	3061	0.001444	0.000707	0.009877	0.000426	0.002281	4.07E-07	8.74E-07	1.29E-05	1.47E-06	1.53E-05	9.9E-07	20.3641
7853	3253	0.001367	0.000669	0.009354	0.000403	0.00216	3.86E-07	8.27E-07	1.22E-05	1.39E-06	1.45E-05	9.37E-07	19.2872
8315	3444	0.001301	0.000637	0.008897	0.000383	0.002055	3.67E-07	7.87E-07	1.16E-05	1.32E-06	1.38E-05	8.92E-07	18.3452
8777	3635	0.001241	0.000607	0.00849	0.000366	0.001961	3.5E-07	7.51E-07	1.11E-05	1.26E-06	1.31E-05	8.51E-07	17.5048
9239	3827	0.001187	0.000581	0.00812	0.00035	0.001875	3.35E-07	7.18E-07	1.06E-05	1.21E-06	1.26E-05	8.14E-07	16.7432
9701	4018	0.001138	0.000557	0.007782	0.000335	0.001797	3.21E-07	6.88E-07	1.01E-05	1.16E-06	1.21E-05	7.8E-07	16.0454
10163	4210	0.001092	0.000535	0.007472	0.000322	0.001726	3.08E-07	6.61E-07	9.74E-06	1.11E-06	1.16E-05	7.49E-07	15.4071
10625	4401	0.001051	0.000514	0.00719	0.00031	0.00166	2.97E-07	6.36E-07	9.37E-06	1.07E-06	1.11E-05	7.2E-07	14.8251
11087	4592	0.001013	0.000496	0.00693	0.000299	0.0016	2.86E-07	6.13E-07	9.03E-06	1.03E-06	1.07E-05	6.94E-07	14.2888
11548	4784	0.000978	0.000479	0.006688	0.000288	0.001544	2.76E-07	5.92E-07	8.72E-06	9.93E-07	1.04E-05	6.7E-07	13.79
12010	4975	0.000945	0.000463	0.006465	0.000279	0.001493	2.67E-07	5.72E-07	8.42E-06	9.6E-07	1E-05	6.48E-07	13.3299
12472	5166	0.000915	0.000448	0.006257	0.00027	0.001445	2.58E-07	5.53E-07	8.15E-06	9.29E-07	9.69E-06	6.27E-07	12.9017
12842	5319	0.000892	0.000437	0.006101	0.000263	0.001409	2.52E-07	5.4E-07	7.95E-06	9.06E-07	9.45E-06	6.11E-07	12.5793
500	0	0.068545	0.033548	0.468893	0.020206	0.108281	1.93E-05	4.15E-05	0.000611	6.96E-05	0.000726	4.7E-05	966.7902
1500	0	0.018474	0.009042	0.126375	0.005446	0.029184	5.21E-06	1.12E-05	0.000165	1.88E-05	0.000196	1.27E-05	260.568
2000	0	0.012236	0.005988	0.0837	0.003607	0.019329	3.45E-06	7.4E-06	0.000109	1.24E-05	0.00013	8.39E-06	172.5771
2500	0	0.008752	0.004283	0.059868	0.00258	0.013825	2.47E-06	5.3E-06	7.8E-05	8.89E-06	9.27E-05	6E-06	123.4386
3000	0	0.006613	0.003237	0.04524	0.00195	0.010447	1.87E-06	4E-06	5.9E-05	6.72E-06	7.01E-05	4.53E-06	93.2789
3500	0	0.005245	0.002567	0.035878	0.001546	0.008285	1.48E-06	3.17E-06	4.68E-05	5.33E-06	5.56E-05	3.6E-06	73.9762
4000	0	0.004349	0.002128	0.029747	0.001282	0.006869	1.23E-06	2.63E-06	3.88E-05	4.42E-06	4.61E-05	2.98E-06	61.3331
4500	0	0.00372	0.00182	0.025444	0.001096	0.005876	1.05E-06	2.25E-06	3.32E-05	3.78E-06	3.94E-05	2.55E-06	52.4619
5000	0	0.003264	0.001597	0.022325	0.000962	0.005155	9.21E-07	1.97E-06	2.91E-05	3.31E-06	3.46E-05	2.24E-06	46.0303
5500	0	0.002922	0.00143	0.019989	0.000861	0.004616	8.24E-07	1.77E-06	2.6E-05	2.97E-06	3.1E-05	2E-06	41.2152
6000	0	0.002658	0.001301	0.018185	0.000784	0.0042	7.5E-07	1.61E-06	2.37E-05	2.7E-06	2.82E-05	1.82E-06	37.4957
6500	0	0.002449	0.001198	0.01675	0.000722	0.003868	6.91E-07	1.48E-06	2.18E-05	2.49E-06	2.59E-05	1.68E-06	34.5359
7000	0	0.002277	0.001114	0.015576	0.000671	0.003597	6.42E-07	1.38E-06	2.03E-05	2.31E-06	2.41E-05	1.56E-06	32.1157
7500	0	0.002133	0.001044	0.014593	0.000629	0.00337	6.02E-07	1.29E-06	1.9E-05	2.17E-06	2.26E-05	1.46E-06	30.0888

1 hr avg conc

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X	Y												
(meters)	(meters)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)
7700	0	0.002082	0.001019	0.014242	0.000614	0.003289	5.87E-07	1.26E-06	1.86E-05	2.11E-06	2.21E-05	1.43E-06	29.3649
462	-191	0.094949	0.04647	0.64951	0.027989	0.14999	2.68E-05	5.75E-05	0.000846	9.64E-05	0.001006	6.51E-05	1339.195
924	-383	0.035044	0.017151	0.239725	0.01033	0.055359	9.89E-06	2.12E-05	0.000312	3.56E-05	0.000371	2.4E-05	494.2787
1386	-574	0.018233	0.008924	0.124723	0.005375	0.028802	5.14E-06	1.1E-05	0.000163	1.85E-05	0.000193	1.25E-05	257.1616
1848	-765	0.012086	0.005915	0.082674	0.003563	0.019092	3.41E-06	7.31E-06	0.000108	1.23E-05	0.000128	8.28E-06	170.4622
2310	-957	0.008652	0.004234	0.059185	0.00255	0.013667	2.44E-06	5.24E-06	7.71E-05	8.79E-06	9.16E-05	5.93E-06	122.0306
2772	-1148	0.006547	0.003204	0.044785	0.00193	0.010342	1.85E-06	3.96E-06	5.84E-05	6.65E-06	6.93E-05	4.49E-06	92.3405
3234	-1339	0.005175	0.002533	0.035401	0.001526	0.008175	1.46E-06	3.13E-06	4.61E-05	5.26E-06	5.48E-05	3.55E-06	72.9922
3696	-1531	0.004212	0.002061	0.02881	0.001241	0.006653	1.19E-06	2.55E-06	3.75E-05	4.28E-06	4.46E-05	2.89E-06	59.4012
4157	-1722	0.003509	0.001717	0.024004	0.001034	0.005543	9.9E-07	2.12E-06	3.13E-05	3.56E-06	3.72E-05	2.41E-06	49.4935
4619	-1913	0.002977	0.001457	0.020366	0.000878	0.004703	8.4E-07	1.8E-06	2.65E-05	3.02E-06	3.15E-05	2.04E-06	41.9917
5081	-2105	0.002563	0.001254	0.017532	0.000756	0.004049	7.23E-07	1.55E-06	2.28E-05	2.6E-06	2.71E-05	1.76E-06	36.1493
354	-354	0.058681	0.02872	0.401416	0.017298	0.092698	1.66E-05	3.55E-05	0.000523	5.96E-05	0.000622	4.02E-05	827.6622
707	-707	0.027128	0.013277	0.185575	0.007997	0.042854	7.65E-06	1.64E-05	0.000242	2.75E-05	0.000287	1.86E-05	382.629
1061	-1061	0.016909	0.008276	0.11567	0.004985	0.026711	4.77E-06	1.02E-05	0.000151	1.72E-05	0.000179	1.16E-05	238.4951
1414	-1414	0.011607	0.005681	0.0794	0.003422	0.018336	3.27E-06	7.02E-06	0.000103	1.18E-05	0.000123	7.96E-06	163.7109
1768	-1768	0.008476	0.004148	0.057978	0.002498	0.013389	2.39E-06	5.13E-06	7.56E-05	8.61E-06	8.98E-05	5.81E-06	119.542
2121	-2121	0.006492	0.003177	0.044411	0.001914	0.010256	1.83E-06	3.93E-06	5.79E-05	6.59E-06	6.88E-05	4.45E-06	91.5693
2475	-2475	0.005172	0.002531	0.03538	0.001525	0.00817	1.46E-06	3.13E-06	4.61E-05	5.25E-06	5.48E-05	3.55E-06	72.9494
2828	-2828	0.004237	0.002074	0.028982	0.001249	0.006693	1.2E-06	2.56E-06	3.78E-05	4.3E-06	4.49E-05	2.9E-06	59.7573
3182	-3182	0.003618	0.001771	0.024747	0.001066	0.005715	1.02E-06	2.19E-06	3.22E-05	3.67E-06	3.83E-05	2.48E-06	51.0239
3536	-3536	0.003179	0.001556	0.021744	0.000937	0.005021	8.97E-07	1.92E-06	2.83E-05	3.23E-06	3.37E-05	2.18E-06	44.8324
3677	-3677	0.003036	0.001486	0.020771	0.000895	0.004796	8.57E-07	1.84E-06	2.71E-05	3.08E-06	3.22E-05	2.08E-06	42.8258
191	-462	0.054285	0.026568	0.371345	0.016002	0.085754	1.53E-05	3.28E-05	0.000484	5.51E-05	0.000575	3.72E-05	765.6607
383	-924	0.022602	0.011062	0.154614	0.006663	0.035705	6.38E-06	1.37E-05	0.000201	2.3E-05	0.000239	1.55E-05	318.7917
574	-1386	0.015194	0.007436	0.103935	0.004479	0.024001	4.29E-06	9.19E-06	0.000135	1.54E-05	0.000161	1.04E-05	214.2987
765	-1848	0.010769	0.005271	0.073669	0.003175	0.017012	3.04E-06	6.52E-06	9.6E-05	1.09E-05	0.000114	7.38E-06	151.8947
957	-2310	0.007996	0.003913	0.054695	0.002357	0.012631	2.26E-06	4.84E-06	7.13E-05	8.12E-06	8.47E-05	5.48E-06	112.7728
1148	-2772	0.00618	0.003025	0.042278	0.001822	0.009763	1.74E-06	3.74E-06	5.51E-05	6.28E-06	6.55E-05	4.24E-06	87.1716
1339	-3234	0.004954	0.002425	0.03389	0.00146	0.007826	1.4E-06	3E-06	4.42E-05	5.03E-06	5.25E-05	3.4E-06	69.877
1531	-3696	0.00407	0.001992	0.027843	0.0012	0.00643	1.15E-06	2.46E-06	3.63E-05	4.13E-06	4.31E-05	2.79E-06	57.4092
1722	-4157	0.003414	0.001671	0.023356	0.001006	0.005393	9.63E-07	2.07E-06	3.04E-05	3.47E-06	3.62E-05	2.34E-06	48.1559
1913	-4619	0.003003	0.00147	0.02054	0.000885	0.004743	8.47E-07	1.82E-06	2.68E-05	3.05E-06	3.18E-05	2.06E-06	42.3513
2105	-5081	0.002696	0.001319	0.018439	0.000795	0.004258	7.6E-07	1.63E-06	2.4E-05	2.74E-06	2.86E-05	1.85E-06	38.0186
2296	-5543	0.002454	0.001201	0.016788	0.000723	0.003877	6.92E-07	1.48E-06	2.19E-05	2.49E-06	2.6E-05	1.68E-06	34.6145
2487	-6005	0.002261	0.001107	0.015468	0.000667	0.003572	6.38E-07	1.37E-06	2.02E-05	2.3E-06	2.4E-05	1.55E-06	31.8928

1 hr avg conc

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X	Y												
(meters)	(meters)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)
2679	-6467	0.002104	0.00103	0.014392	0.00062	0.003324	5.93E-07	1.27E-06	1.88E-05	2.14E-06	2.23E-05	1.44E-06	29.6747
2870	-6929	0.00197	0.000964	0.013479	0.000581	0.003113	5.56E-07	1.19E-06	1.76E-05	2E-06	2.09E-05	1.35E-06	27.7925
3061	-7391	0.001856	0.000908	0.012695	0.000547	0.002932	5.24E-07	1.12E-06	1.65E-05	1.88E-06	1.97E-05	1.27E-06	26.175
0	-500	0.058961	0.028857	0.403331	0.017381	0.09314	1.66E-05	3.57E-05	0.000526	5.99E-05	0.000625	4.04E-05	831.6105
0	-1000	0.029562	0.014468	0.20222	0.008714	0.046698	8.34E-06	1.79E-05	0.000264	3E-05	0.000313	2.03E-05	416.9478
0	-1500	0.020628	0.010096	0.14111	0.006081	0.032586	5.82E-06	1.25E-05	0.000184	2.09E-05	0.000219	1.41E-05	290.949
0	-2000	0.015456	0.007565	0.10573	0.004556	0.024416	4.36E-06	9.35E-06	0.000138	1.57E-05	0.000164	1.06E-05	218.0005
0	-2500	0.011999	0.005872	0.082078	0.003537	0.018954	3.38E-06	7.26E-06	0.000107	1.22E-05	0.000127	8.22E-06	169.2325
0	-3000	0.009537	0.004668	0.065241	0.002811	0.015066	2.69E-06	5.77E-06	8.5E-05	9.69E-06	0.000101	6.54E-06	134.5167
0	-3500	0.007746	0.003791	0.052989	0.002283	0.012237	2.19E-06	4.69E-06	6.91E-05	7.87E-06	8.21E-05	5.31E-06	109.2566
0	-4000	0.006416	0.00314	0.043887	0.001891	0.010135	1.81E-06	3.88E-06	5.72E-05	6.52E-06	6.8E-05	4.4E-06	90.4879
0	-4500	0.005428	0.002657	0.037133	0.0016	0.008575	1.53E-06	3.28E-06	4.84E-05	5.51E-06	5.75E-05	3.72E-06	76.562
0	-5000	0.004657	0.002279	0.031859	0.001373	0.007357	1.31E-06	2.82E-06	4.15E-05	4.73E-06	4.93E-05	3.19E-06	65.6884
0	-5500	0.004043	0.001979	0.027657	0.001192	0.006387	1.14E-06	2.45E-06	3.6E-05	4.11E-06	4.28E-05	2.77E-06	57.0256
0	-6000	0.003546	0.001735	0.024257	0.001045	0.005602	1E-06	2.15E-06	3.16E-05	3.6E-06	3.76E-05	2.43E-06	50.0135
0	-6500	0.003138	0.001536	0.021464	0.000925	0.004957	8.85E-07	1.9E-06	2.8E-05	3.19E-06	3.32E-05	2.15E-06	44.2564
0	-7000	0.002798	0.00137	0.019143	0.000825	0.004421	7.89E-07	1.69E-06	2.49E-05	2.84E-06	2.96E-05	1.92E-06	39.4699
0	-7500	0.002513	0.00123	0.017191	0.000741	0.00397	7.09E-07	1.52E-06	2.24E-05	2.55E-06	2.66E-05	1.72E-06	35.4455
0	-8000	0.002271	0.001111	0.015533	0.000669	0.003587	6.41E-07	1.37E-06	2.02E-05	2.31E-06	2.41E-05	1.56E-06	32.0277
0	-8500	0.002063	0.00101	0.014113	0.000608	0.003259	5.82E-07	1.25E-06	1.84E-05	2.1E-06	2.19E-05	1.41E-06	29.099
0	-9000	0.001884	0.000922	0.012886	0.000555	0.002976	5.31E-07	1.14E-06	1.68E-05	1.91E-06	2E-05	1.29E-06	26.5689
-191	-462	0.04608	0.022553	0.315215	0.013583	0.072792	1.3E-05	2.79E-05	0.000411	4.68E-05	0.000488	3.16E-05	649.9282
-383	-924	0.022444	0.010985	0.153531	0.006616	0.035455	6.33E-06	1.36E-05	0.0002	2.28E-05	0.000238	1.54E-05	316.5582
-574	-1386	0.015073	0.007377	0.103106	0.004443	0.02381	4.25E-06	9.12E-06	0.000134	1.53E-05	0.00016	1.03E-05	212.5892
-765	-1848	0.010675	0.005225	0.073023	0.003147	0.016863	3.01E-06	6.46E-06	9.52E-05	1.08E-05	0.000113	7.32E-06	150.5624
-957	-2310	0.00792	0.003876	0.054179	0.002335	0.012511	2.23E-06	4.79E-06	7.06E-05	8.04E-06	8.39E-05	5.43E-06	111.7086
-1148	-2772	0.006119	0.002995	0.041855	0.001804	0.009665	1.73E-06	3.7E-06	5.45E-05	6.21E-06	6.48E-05	4.19E-06	86.2984
-1339	-3234	0.004902	0.002399	0.033532	0.001445	0.007743	1.38E-06	2.97E-06	4.37E-05	4.98E-06	5.19E-05	3.36E-06	69.1373
-1531	-3696	0.004025	0.00197	0.027534	0.001187	0.006358	1.14E-06	2.44E-06	3.59E-05	4.09E-06	4.26E-05	2.76E-06	56.7715
-1722	-4157	0.003375	0.001652	0.023085	0.000995	0.005331	9.52E-07	2.04E-06	3.01E-05	3.43E-06	3.57E-05	2.31E-06	47.5979
-1913	-4619	0.002876	0.001408	0.019674	0.000848	0.004543	8.11E-07	1.74E-06	2.56E-05	2.92E-06	3.05E-05	1.97E-06	40.5657
-2105	-5081	0.002485	0.001216	0.016996	0.000732	0.003925	7.01E-07	1.5E-06	2.21E-05	2.52E-06	2.63E-05	1.7E-06	35.0435
-2296	-5543	0.002172	0.001063	0.01486	0.00064	0.003432	6.13E-07	1.31E-06	1.94E-05	2.21E-06	2.3E-05	1.49E-06	30.6394
-2487	-6005	0.001918	0.000939	0.013123	0.000566	0.00303	5.41E-07	1.16E-06	1.71E-05	1.95E-06	2.03E-05	1.32E-06	27.0579
-2679	-6467	0.001708	0.000836	0.011686	0.000504	0.002699	4.82E-07	1.03E-06	1.52E-05	1.73E-06	1.81E-05	1.17E-06	24.094
-2870	-6929	0.001545	0.000756	0.010569	0.000455	0.002441	4.36E-07	9.35E-07	1.38E-05	1.57E-06	1.64E-05	1.06E-06	21.7918

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X	Y												
(meters)	(meters)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)
-3061	-7391	0.001446	0.000708	0.009892	0.000426	0.002284	4.08E-07	8.75E-07	1.29E-05	1.47E-06	1.53E-05	9.91E-07	20.3952
-3253	-7853	0.001363	0.000667	0.009322	0.000402	0.002153	3.84E-07	8.25E-07	1.21E-05	1.38E-06	1.44E-05	9.34E-07	19.2205
-3444	-8315	0.001289	0.000631	0.008817	0.00038	0.002036	3.64E-07	7.8E-07	1.15E-05	1.31E-06	1.37E-05	8.83E-07	18.179
-3635	-8777	0.001224	0.000599	0.008372	0.000361	0.001933	3.45E-07	7.41E-07	1.09E-05	1.24E-06	1.3E-05	8.39E-07	17.2613
-3827	-9239	0.001167	0.000571	0.007983	0.000344	0.001843	3.29E-07	7.06E-07	1.04E-05	1.19E-06	1.24E-05	8E-07	16.4591
-3942	-9516	0.001135	0.000556	0.007766	0.000335	0.001793	3.2E-07	6.87E-07	1.01E-05	1.15E-06	1.2E-05	7.78E-07	16.0116
-354	-354	0.068425	0.033489	0.468071	0.02017	0.108091	1.93E-05	4.14E-05	0.00061	6.95E-05	0.000725	4.69E-05	965.0953
-1061	-1061	0.021887	0.010712	0.149718	0.006452	0.034574	6.17E-06	1.32E-05	0.000195	2.22E-05	0.000232	1.5E-05	308.696
-1414	-1414	0.014916	0.0073	0.102032	0.004397	0.023562	4.21E-06	9.03E-06	0.000133	1.51E-05	0.000158	1.02E-05	210.3759
-1768	-1768	0.010841	0.005306	0.074157	0.003196	0.017125	3.06E-06	6.56E-06	9.66E-05	1.1E-05	0.000115	7.43E-06	152.9018
-2121	-2121	0.008242	0.004034	0.056382	0.00243	0.01302	2.33E-06	4.99E-06	7.35E-05	8.37E-06	8.73E-05	5.65E-06	116.2519
-2475	-2475	0.00648	0.003172	0.04433	0.00191	0.010237	1.83E-06	3.92E-06	5.78E-05	6.58E-06	6.86E-05	4.44E-06	91.403
-2828	-2828	0.005241	0.002565	0.035853	0.001545	0.00828	1.48E-06	3.17E-06	4.67E-05	5.32E-06	5.55E-05	3.59E-06	73.9244
-3182	-3182	0.00435	0.002129	0.029757	0.001282	0.006872	1.23E-06	2.63E-06	3.88E-05	4.42E-06	4.61E-05	2.98E-06	61.3548
-3536	-3536	0.003675	0.001799	0.02514	0.001083	0.005806	1.04E-06	2.22E-06	3.28E-05	3.73E-06	3.89E-05	2.52E-06	51.8359
-3889	-3889	0.003151	0.001542	0.021557	0.000929	0.004978	8.89E-07	1.91E-06	2.81E-05	3.2E-06	3.34E-05	2.16E-06	44.4481
-4243	-4243	0.002734	0.001338	0.018705	0.000806	0.004319	7.71E-07	1.65E-06	2.44E-05	2.78E-06	2.9E-05	1.87E-06	38.5668
-4596	-4596	0.002398	0.001174	0.016406	0.000707	0.003789	6.77E-07	1.45E-06	2.14E-05	2.44E-06	2.54E-05	1.64E-06	33.8259
-4950	-4950	0.002122	0.001038	0.014513	0.000625	0.003351	5.98E-07	1.28E-06	1.89E-05	2.15E-06	2.25E-05	1.45E-06	29.9241
-5303	-5303	0.001892	0.000926	0.012944	0.000558	0.002989	5.34E-07	1.14E-06	1.69E-05	1.92E-06	2E-05	1.3E-06	26.6889
-5657	-5657	0.001699	0.000831	0.011621	0.000501	0.002683	4.79E-07	1.03E-06	1.51E-05	1.73E-06	1.8E-05	1.16E-06	23.9598
-5940	-5940	0.001565	0.000766	0.010708	0.000461	0.002473	4.42E-07	9.47E-07	1.4E-05	1.59E-06	1.66E-05	1.07E-06	22.0776
-462	-191	0.100288	0.049083	0.686033	0.029563	0.158424	2.83E-05	6.07E-05	0.000894	0.000102	0.001062	6.87E-05	1414.502
-1386	-574	0.027057	0.013242	0.185088	0.007976	0.042742	7.63E-06	1.64E-05	0.000241	2.75E-05	0.000287	1.85E-05	381.6245
-1848	-765	0.018065	0.008842	0.123579	0.005325	0.028538	5.1E-06	1.09E-05	0.000161	1.83E-05	0.000191	1.24E-05	254.8012
-2310	-957	0.013006	0.006365	0.08897	0.003834	0.020546	3.67E-06	7.87E-06	0.000116	1.32E-05	0.000138	8.92E-06	183.4431
-2772	-1148	0.009871	0.004831	0.067524	0.00291	0.015593	2.78E-06	5.97E-06	8.8E-05	1E-05	0.000105	6.77E-06	139.2246
-3234	-1339	0.007769	0.003802	0.053145	0.00229	0.012273	2.19E-06	4.7E-06	6.93E-05	7.89E-06	8.23E-05	5.33E-06	109.5781
-3696	-1531	0.006279	0.003073	0.042951	0.001851	0.009919	1.77E-06	3.8E-06	5.6E-05	6.38E-06	6.65E-05	4.3E-06	88.5596
-4157	-1722	0.005221	0.002555	0.035714	0.001539	0.008247	1.47E-06	3.16E-06	4.65E-05	5.3E-06	5.53E-05	3.58E-06	73.6379
-4619	-1913	0.004421	0.002164	0.030245	0.001303	0.006985	1.25E-06	2.68E-06	3.94E-05	4.49E-06	4.68E-05	3.03E-06	62.3618
-5081	-2105	0.003792	0.001856	0.02594	0.001118	0.00599	1.07E-06	2.29E-06	3.38E-05	3.85E-06	4.02E-05	2.6E-06	53.4855
-5543	-2296	0.003298	0.001614	0.022559	0.000972	0.00521	9.3E-07	2E-06	2.94E-05	3.35E-06	3.49E-05	2.26E-06	46.5137
-6005	-2487	0.002898	0.001418	0.019823	0.000854	0.004578	8.17E-07	1.75E-06	2.58E-05	2.94E-06	3.07E-05	1.99E-06	40.8725
-500	0	0.093025	0.045529	0.636351	0.027422	0.146951	2.62E-05	5.63E-05	0.000829	9.45E-05	0.000985	6.38E-05	1312.065
-1500	0	0.028024	0.013716	0.191704	0.008261	0.04427	7.91E-06	1.7E-05	0.00025	2.85E-05	0.000297	1.92E-05	395.266

1 hr avg conc

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X	Y												
(meters)	(meters)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)	(μg/m³)
-2000	0	0.018592	0.009099	0.127178	0.00548	0.029369	5.24E-06	1.12E-05	0.000166	1.89E-05	0.000197	1.27E-05	262.2235
-2500	0	0.013345	0.006532	0.091291	0.003934	0.021082	3.76E-06	8.07E-06	0.000119	1.36E-05	0.000141	9.15E-06	188.2281
-3000	0	0.010086	0.004937	0.068997	0.002973	0.015933	2.85E-06	6.1E-06	8.99E-05	1.02E-05	0.000107	6.91E-06	142.2623
-3500	0	0.007916	0.003874	0.054148	0.002333	0.012504	2.23E-06	4.79E-06	7.06E-05	8.04E-06	8.38E-05	5.43E-06	111.6461
-4000	0	0.006402	0.003133	0.043793	0.001887	0.010113	1.81E-06	3.87E-06	5.71E-05	6.5E-06	6.78E-05	4.39E-06	90.2943
-4300	0	0.005716	0.002798	0.039103	0.001685	0.00903	1.61E-06	3.46E-06	5.1E-05	5.81E-06	6.05E-05	3.92E-06	80.6255
-462	191	0.074806	0.036612	0.511722	0.022052	0.118171	2.11E-05	4.53E-05	0.000667	7.6E-05	0.000792	5.13E-05	1055.097
-1386	574	0.01806	0.008839	0.123541	0.005324	0.028529	5.09E-06	1.09E-05	0.000161	1.83E-05	0.000191	1.24E-05	254.7231
-1848	765	0.011951	0.005849	0.081751	0.003523	0.018879	3.37E-06	7.23E-06	0.000107	1.21E-05	0.000127	8.19E-06	168.5587
-2310	957	0.008551	0.004185	0.058497	0.002521	0.013509	2.41E-06	5.17E-06	7.62E-05	8.68E-06	9.06E-05	5.86E-06	120.6133
-2772	1148	0.006462	0.003162	0.044202	0.001905	0.010207	1.82E-06	3.91E-06	5.76E-05	6.56E-06	6.84E-05	4.43E-06	91.1379
-3234	1339	0.005101	0.002497	0.034896	0.001504	0.008058	1.44E-06	3.09E-06	4.55E-05	5.18E-06	5.4E-05	3.5E-06	71.9502
-3696	1531	0.00415	0.002031	0.02839	0.001223	0.006556	1.17E-06	2.51E-06	3.7E-05	4.21E-06	4.4E-05	2.84E-06	58.5353
-4157	1722	0.003455	0.001691	0.023637	0.001019	0.005458	9.75E-07	2.09E-06	3.08E-05	3.51E-06	3.66E-05	2.37E-06	48.7363
-4619	1913	0.002929	0.001433	0.020035	0.000863	0.004627	8.26E-07	1.77E-06	2.61E-05	2.97E-06	3.1E-05	2.01E-06	41.31
-354	354	0.057935	0.028355	0.396313	0.017078	0.09152	1.63E-05	3.51E-05	0.000516	5.88E-05	0.000614	3.97E-05	817.1396
-1061	1061	0.016219	0.007938	0.110945	0.004781	0.02562	4.58E-06	9.81E-06	0.000145	1.65E-05	0.000172	1.11E-05	228.7523
-1414	1414	0.011067	0.005416	0.075705	0.003262	0.017482	3.12E-06	6.7E-06	9.87E-05	1.12E-05	0.000117	7.59E-06	156.0919
-1768	1768	0.008052	0.003941	0.055079	0.002374	0.012719	2.27E-06	4.87E-06	7.18E-05	8.18E-06	8.53E-05	5.52E-06	113.5655
-2121	2121	0.006148	0.003009	0.042058	0.001812	0.009712	1.73E-06	3.72E-06	5.48E-05	6.24E-06	6.51E-05	4.21E-06	86.7165
-2475	2475	0.004883	0.00239	0.033402	0.001439	0.007713	1.38E-06	2.95E-06	4.35E-05	4.96E-06	5.17E-05	3.35E-06	68.8693
-2828	2828	0.003988	0.001952	0.027284	0.001176	0.006301	1.13E-06	2.41E-06	3.56E-05	4.05E-06	4.22E-05	2.73E-06	56.2552
-3182	3182	0.003327	0.001628	0.02276	0.000981	0.005256	9.39E-07	2.01E-06	2.97E-05	3.38E-06	3.52E-05	2.28E-06	46.9276
-3536	3536	0.002825	0.001382	0.019323	0.000833	0.004462	7.97E-07	1.71E-06	2.52E-05	2.87E-06	2.99E-05	1.94E-06	39.8407
-3889	3889	0.002434	0.001191	0.016651	0.000718	0.003845	6.87E-07	1.47E-06	2.17E-05	2.47E-06	2.58E-05	1.67E-06	34.3328
-4243	4243	0.002122	0.001039	0.014519	0.000626	0.003353	5.99E-07	1.28E-06	1.89E-05	2.16E-06	2.25E-05	1.45E-06	29.9363
-4596	4596	0.001941	0.00095	0.013277	0.000572	0.003066	5.47E-07	1.17E-06	1.73E-05	1.97E-06	2.06E-05	1.33E-06	27.3744
-4950	4950	0.001812	0.000887	0.012398	0.000534	0.002863	5.11E-07	1.1E-06	1.62E-05	1.84E-06	1.92E-05	1.24E-06	25.5631
-5303	5303	0.001705	0.000835	0.011665	0.000503	0.002694	4.81E-07	1.03E-06	1.52E-05	1.73E-06	1.81E-05	1.17E-06	24.0523
-5657	5657	0.001613	0.00079	0.011037	0.000476	0.002549	4.55E-07	9.76E-07	1.44E-05	1.64E-06	1.71E-05	1.11E-06	22.7567
-5940	5940	0.001549	0.000758	0.010594	0.000457	0.002446	4.37E-07	9.37E-07	1.38E-05	1.57E-06	1.64E-05	1.06E-06	21.843
-191	462	0.062491	0.030584	0.427476	0.018421	0.098716	1.76E-05	3.78E-05	0.000557	6.35E-05	0.000662	4.28E-05	881.3931
-574	1386	0.014931	0.007307	0.102135	0.004401	0.023586	4.21E-06	9.03E-06	0.000133	1.52E-05	0.000158	1.02E-05	210.587
-765	1848	0.01058	0.005178	0.072377	0.003119	0.016714	2.98E-06	6.4E-06	9.43E-05	1.07E-05	0.000112	7.25E-06	149.2307
-957	2310	0.007862	0.003848	0.053783	0.002318	0.01242	2.22E-06	4.76E-06	7.01E-05	7.98E-06	8.33E-05	5.39E-06	110.8927
-1148	2772	0.006076	0.002974	0.041566	0.001791	0.009599	1.71E-06	3.68E-06	5.42E-05	6.17E-06	6.44E-05	4.17E-06	85.7034

1 hr avg conc

Receptors**		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	HMX	RDX	DNB	TNT	DNT	PM10
X	Y												
(meters)	(meters)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)	(μg/m^3)
-1339	3234	0.004869	0.002383	0.033307	0.001435	0.007691	1.37E-06	2.95E-06	4.34E-05	4.94E-06	5.16E-05	3.34E-06	68.6737
-1531	3696	0.004046	0.00198	0.027676	0.001193	0.006391	1.14E-06	2.45E-06	3.61E-05	4.11E-06	4.29E-05	2.77E-06	57.0629
-1722	4157	0.003476	0.001701	0.02378	0.001025	0.005491	9.81E-07	2.1E-06	3.1E-05	3.53E-06	3.68E-05	2.38E-06	49.0309
-1913	4619	0.003059	0.001497	0.020922	0.000902	0.004832	8.63E-07	1.85E-06	2.73E-05	3.11E-06	3.24E-05	2.1E-06	43.1389
-2105	5081	0.002743	0.001343	0.018764	0.000809	0.004333	7.74E-07	1.66E-06	2.45E-05	2.79E-06	2.91E-05	1.88E-06	38.6894
-2296	5543	0.002499	0.001223	0.017097	0.000737	0.003948	7.05E-07	1.51E-06	2.23E-05	2.54E-06	2.65E-05	1.71E-06	35.2513
-2487	6005	0.002305	0.001128	0.015768	0.000679	0.003641	6.5E-07	1.39E-06	2.05E-05	2.34E-06	2.44E-05	1.58E-06	32.5112
-2679	6467	0.002145	0.00105	0.014676	0.000632	0.003389	6.05E-07	1.3E-06	1.91E-05	2.18E-06	2.27E-05	1.47E-06	30.2606
-2870	6929	0.002012	0.000985	0.013766	0.000593	0.003179	5.68E-07	1.22E-06	1.79E-05	2.04E-06	2.13E-05	1.38E-06	28.3843
-2947	7114	0.001965	0.000962	0.013439	0.000579	0.003103	5.54E-07	1.19E-06	1.75E-05	2E-06	2.08E-05	1.35E-06	27.7093
-2105	5081	0.002743	0.001343	0.018764	0.000809	0.004333	7.74E-07	1.66E-06	2.45E-05	2.79E-06	2.91E-05	1.88E-06	38.6894
-1990	4804	0.002922	0.00143	0.019986	0.000861	0.004615	8.24E-07	1.77E-06	2.6E-05	2.97E-06	3.09E-05	2E-06	41.2086
-3061	7391	0.001899	0.000929	0.012988	0.00056	0.002999	5.36E-07	1.15E-06	1.69E-05	1.93E-06	2.01E-05	1.3E-06	26.7803
-3444	8315	0.001712	0.000838	0.011712	0.000505	0.002705	4.83E-07	1.04E-06	1.53E-05	1.74E-06	1.81E-05	1.17E-06	24.1482
-3482	8407	0.001696	0.00083	0.011601	0.0005	0.002679	4.78E-07	1.03E-06	1.51E-05	1.72E-06	1.8E-05	1.16E-06	23.92
1061	3960	0.003757	0.001839	0.025703	0.001108	0.005936	1.06E-06	2.27E-06	3.35E-05	3.82E-06	3.98E-05	2.58E-06	52.9965
209	5996	0.002132	0.001043	0.014583	0.000628	0.003368	6.01E-07	1.29E-06	1.9E-05	2.16E-06	2.26E-05	1.46E-06	30.0684
-1705	-8021	0.001788	0.000875	0.012229	0.000527	0.002824	5.04E-07	1.08E-06	1.59E-05	1.82E-06	1.89E-05	1.23E-06	25.2135
-282	530	0.039186	0.019179	0.268059	0.011551	0.061902	1.11E-05	2.37E-05	0.000349	3.98E-05	0.000415	2.69E-05	552.6987
6431	1485	0.002147	0.001051	0.014686	0.000633	0.003391	6.06E-07	1.3E-06	1.91E-05	2.18E-06	2.27E-05	1.47E-06	30.28
8682	1688	0.001632	0.000799	0.011165	0.000481	0.002578	4.6E-07	9.88E-07	1.45E-05	1.66E-06	1.73E-05	1.12E-06	23.0202
9976	698	0.001295	0.000634	0.008858	0.000382	0.002046	3.65E-07	7.84E-07	1.15E-05	1.31E-06	1.37E-05	8.88E-07	18.2635
5936	-3709	0.002233	0.001093	0.015277	0.000658	0.003528	6.3E-07	1.35E-06	1.99E-05	2.27E-06	2.37E-05	1.53E-06	31.4982
14518	3352	0.001026	0.000502	0.00702	0.000303	0.001621	2.89E-07	6.21E-07	9.15E-06	1.04E-06	1.09E-05	7.03E-07	14.4743
-4852	-682	0.00297	0.001454	0.020316	0.000875	0.004692	8.38E-07	1.8E-06	2.65E-05	3.02E-06	3.15E-05	2.04E-06	41.8887

ISCST3/INPUFF
OB/OD TREATMENT OPERATIONS

Conversion Factors: Duration

	Conversion Factor (Multiplier)					
Unit	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
3a-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
3b-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
3c-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
4-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
5-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
6-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
7-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
8-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
9-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
10-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
11-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
12-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
13-ABG	1	0.333333	0.125	0.041667	0.000457	0.000114
3-DG	1	0.333333	0.125	0.041667	0.000457	0.000114
3a-ORR	1	0.333333	0.125	0.041667	0.000457	0.000114
3b-ORR	1	0.333333	0.125	0.041667	0.000457	0.000114

Conversion Factors: Screening Guidance

Averaging Period	Multiplier
1 Hour	1
3 Hours	0.9
8 Hours	0.7
24 Hours	0.4
Quarterly	0.32
Annual	0.08

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT	JOB NUMBER
NSWC - Crane	7636- BSO-202115
SUBJECT: Cumulative Concentrations	
BASED ON	DRAWING NUMBER

BY	CHECKED BY	APPROVED BY	DATE
MLegg	J. Lucas		8/8/97

Cumulative Concentrations are calculated by summing individual contributions from appropriate treatment units for a given receptor for a given averaging period.

Long-Term (Quarterly + Annual) concentrations include contributions from all treatment units. Short-Term (24 Hours and less) concentrations are calculated using attached matrix of scenarios and treatment units.

Example

Contaminant : Carbon Monoxide
Averaging Period : 1 Hour
Scenario : Short-Term Scenario #1
Receptor : Padanaram

$$C_{cum_i} = \sum C_{ij}$$

where C_i = concentration at receptor i from treatment unit j, ($\mu g/m^3$)
C_{cum_i} = cumulative concentration at receptor i.

Concentrations at PADANARAM from:

6-ABG	5.90 E-2	Total For All Units:
9-ABG	1.47 E-2	
10-ABG	1.47 E-1	
11-ABG	7.37 E-3	C_{cum} = 1.47 E+2 $\mu g/m^3$
12-ABG	5.53 E-3	
13-ABG	7.37 E-1	
3a-ORR	5.42 E-2	
3b-ORR	1.63 E-1	
3-DG	1.46 E+2	
WIND EROSION	0	

CLIENT	JOB NUMBER
NSWC - Crane	7636-BSO-202115
SUBJECT: Concentration Contribution of A Treatment Process a Given Receptor	
BASED ON: Emissions, Dispersion Factors	DRAWING NUMBER

BY	CHECKED BY	APPROVED BY	DATE
M Legen	[illegible]		8/6/97

For a given averaging period, the concentration of a contaminant due solely from a given treatment unit is given by:

$$C_{ijk} = E_{ij} \times DF_k \times CF_d \times CF_s$$

where: C_{ijk} = concentration of contaminant i from treatment unit j at receptor k, ($\mu g/m^3$)

E_{ij} = Emissions of contaminant i from treatment unit j, (lb)

DF_k = dispersion factor (1-hour) from treatment unit j to receptor k, [($\mu g/m^3$)/lb]

CF_d = durational conversion factor, (unitless)

CF_s = screening guidance conversion factor, (unitless)*

The durational conversion factor converts a 1-hour dispersion factor (DF_k) to one appropriate for the given averaging period, and is given by:

$$CF_d = 1/(\text{\# Hours in Averaging period})$$

Examples: To convert a 1-hour DF_k to an 8-hour DF_k use the following conversion factor

$$CF_d = \frac{1}{8} = 0.125$$

*"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources," EPA-454/R-92-019.

CLIENT	JOB NUMBER
NSWC - Crane	7636 BSO-202115
SUBJECT: Concentration Contributions	
BASED ON	DRAWING NUMBER

BY	CHECKED BY	APPROVED BY	DATE
MLyh	J. Fuller		8/6/97

To convert from a 1-hour DF_k to an annual DF_k, use the following conversion factor

$$CF_d = \frac{}{8760} = 1.14E-4$$

The CF_s is used to account for average variability in wind direction, as described in the EPA document*. Values of CF_s are

Averaging Period	CF_s
1- Hour	1.0
3 Hours	0.9
8- Hours	0.7
24 Hours	0.4
Quarterly	0.32
Annual	0.08

Example:

Contaminant : Benzene
Averaging Period : 3 HOURS
Treatment Unit : 10-ABG (ISC dispersion factor)
Receptor : ENE Boundary

$$C_{ijk} = E_{ij} \cdot DF_k \cdot CF_d \cdot CF_s$$

$E_{ij} = 1.94E-2$ lb

$DF_k = 1.57E-1$ $(\mu g/m^3)/lb$

$CF_d = 0.33$

$CF_s = 0.9$

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT NSWC - Crane	JOB NUMBER 7636 - BSO - 202115
SUBJECT Concentration Contributions	
BASED ON	DRAWING NUMBER

BY	CHECKED BY	APPROVED BY	DATE
MLeyn	J. Lucas		8/6/97

$$C_{Benzene,\ 10\text{-}ABG,\ ENE} = (1.94E\text{-}2)(1.57E\text{-}1)(0.33)(0.9)$$

$$= 9.1\ E\text{-}4\ \mu g/m^3$$

APPENDIX D-4

OB/OD AVERAGING PERIOD TREATMENT QUANTITIES

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT: NSWC - CRANE	JOB NUMBER: 7636-BSO-202115
SUBJECT: Calculation of Unit-Specific Emissions	
BASED ON: Treatment Quantities, Emission Factors	DRAWING NUMBER:

BY	CHECKED BY	APPROVED BY	DATE
M Leyer	J. Fricas		8/6/97

For any given averaging period, total emissions from any unit are given by:

$$E_{ij} = (EF_{ij}) \times (TQ_j)$$

where

E_{ij} = emissions of contaminant i from treatment unit j, (lb)

EF_{ij} = emission factor for contaminant i from treatment unit j, (lb emitted / lb NEW)

TQ_j = treatment quantity at treatment unit j for the averaging period, (lb NEW)

Example:

Contaminant: 1-Nitropyrene
Averaging Period: 1 Hour
Treatment Unit: 3a-ABG (Propellant Pans)

EF_{ij} = 1.39 E-8 lb emitted / lb NEW
TQ_j = 15,000 lb NEW

$$E_{ij} = (1.39\,E\text{-}8) \times (15{,}000)$$

$$= 2.09\,E\text{-}4 \text{ lbs.}$$

Treatment Quantities

Unit	Process	Treatment Quantity (lbs)					
		1 Hour	3 Hours	8 Hours	24 Hours	Quarterly	Annual
3a - ABG	Propellants	15,000	30,000	45,000	75,000	1,750,000	7,000,000
3b - ABG	Explosives	5,000	10,000	15,000	25,000	582,500	2,330,000
3c - ABG	Production Scrap	15,000	30,000	45,000	75,000	1,750,000	7,000,000
6 - ABG	Red Phosphorus	400	800	1,600	1,600	25,000	100,000
7 - ABG	Pyrotechnics	100	100	200	200	2,800	11,200
8 - ABG	Black Powder Slurry	125	125	250	250	3,500	14,000
9 - ABG	Contaminated Waste Materials	100	200	400	400	5,600	22,400
10 - Dewatering Unit	Contaminated Sludges	1,000	2,000	2,000	2,000	28,000	112,000
11 - Dewatering Unit	Red Phosphorus Sludge	50	150	200	200	2,800	11,200
12 - Primer Pits	Pyrotechnics Fuses & Small Items	37.5	112.5	300	300	4,200	16,800
13 - Incendiary Cage	Explosives & Pyrotechnics	5,000	15,000	40,000	50,000	350,000	1,400,000
3 - DG	Explosive Materials	55,000	55,000	55,000	55,000	1,375,000	5,500,000
3a - ORR	Yellow D	750	2,250	6,000	6,000	30,000	120,000
3b - ORR	Projectile Bodies	2,250	6,750	9,000	9,000	45,000	180,000

APPENDIX D-5

OB/OD TREATMENT OPERATIONS EMISSION FACTORS

CLIENT NSWC- Crane	JOB NUMBER 7636- BSO - 202115
SUBJECT Calculation of Short-Term + Long-Term Emission Factors	
BASED ON Bangbox Data	DRAWING NUMBER
BY MLeger / CHECKED BY Lucas	APPROVED BY / DATE 8/6/97

Short-Term

Short-Term Emission Factor is 95% UCL of Bangbox results for a given contaminant, defined as:

$$95\%\ UCL = \bar{x} + t\left(\frac{\sigma}{\sqrt{n}}\right), \text{ where}$$

$\bar{x}$ = average of test results
t = student's t-test value
σ = standard deviation of test values
n = number of test values.

$$\bar{x} = \frac{\Sigma x}{n}, \text{ where } x \text{ is the test value.}$$

Example

Contaminant : Anthracene
Operation : OD
Test Values :

BLOCK TNT	1.3 E-7
20 mm HEI	1.3 E-7
40 mm HEI	1.3 E-7
MINE M18A1	2.6 E-7
ADAPTER BOOSTER	1.3E-7

$$\bar{x} = (1.3E-7 + 1.3E-7 + 1.3E-7 + 2.6E-7 + 1.3E-7)/5$$

$$= 1.6E-7$$

$$\sigma = \sqrt{\frac{n\Sigma x^2 - (\Sigma x)^2}{n^2}}$$

$$= \sqrt{\frac{5[(1.3E-7)^2 + (1.3E-7)^2 + (1.3E-7)^2 + (2.6E-7)^2 + (1.3E-7)^2] - (7.8E-7)}{(5)^2}}$$

CLIENT	JOB NUMBER
NSWC - Crane	7636 - BSO - 202115
SUBJECT Short-Term - Long-Term Emission Factors	
BASED ON Bangbox Data	DRAWING NUMBER
BY MLegin / CHECKED BY J. Fuccus	APPROVED BY / DATE 8/6/97

$\sigma = 5.2E-8$

For a population of 5, the t-test value of 2.1 is used.

$$\therefore \quad 95\% \text{ UCL} = 1.6E-7 + 2.1\left(\frac{5.2E-8}{\sqrt{5}}\right)$$

$$= 1.6E-7 + 4.9E-8$$

$$= 2.1E-7$$

Long-Term

The Long-term emission factor (for averaging periods of greater than 24-Hours) is defined as the average of the Bangbox Test values:

$$\bar{x} = \frac{\Sigma x}{n}$$

Example

Contaminant : Particulates (PM-10)
Operation : OB
Test Values:

Composite	1.0 E-4
Triple Base	6.9 E-3
Phase B	1.1 E-2
Phase C	2.0 E-2
Phase C M1	1.6 E-2
Phase C M6	1.0 E-2

$$\bar{x} = \frac{(1.0E-4) + (6.9E-3) + (1.1E-2) + (2.0E-2) + (1.6E-2) + (1.0E-2)}{6}$$

$$= 1.1E-2$$

Emission Factors: ABG Burn Pans - Propellant Burn

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	1.39E-08	1.00E-08
1,3-Butadiene		
1,3,5-Trinitrobenzene	8.44E-09	5.04E-09
1,4-Dichlorobenzene		
1,6-Dinitropyrene	1.00E-08	1.00E-08
2-Methyl naphthalene		
2-Methylphenol		
2-Naphthylamine	1.00E-08	1.00E-08
2-Nitronaphthalene	4.68E-08	2.62E-08
2-Nitrophenol	3.49E-07	1.60E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-08	1.00E-08
4-Nitrophenol		
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-08	1.00E-08
Acenaphthylene		
Acetophenone		
alpha,alpha-Dimethylphenethylamine		
Ammonia	2.00E-05	2.00E-05
Anthracene		
Aromatics (VOs, including benzene)		
Benzene	9.68E-06	5.60E-06
Benzo[a]pyrene	3.75E-07	1.49E-07
Benzo[b]fluoranthene		
Benz[c]acridine	1.00E-08	1.00E-08
Benzyl alcohol		
Benzo[k]fluoranthene		
Benz[a]anthracene	6.56E-08	3.26E-08
Butyl benzyl phthalate		
Carbon monoxide	6.14E-04	3.94E-04
Chrysene		
Dibenzofurans	4.81E-05	1.73E-05
Dibenz[a,h]anthracene	1.00E-08	1.00E-08
Diethylenetriamine	1.00E-08	1.00E-08
Dimethyl phthalate		
Di-n-octyl phthalate		
Di-n-propyladipate	1.00E-08	1.00E-08
Dioctylsebacate	1.00E-08	1.00E-08
Di(2-ethylhexyl)phthalate		
Ethyl benzene		
Fluoranthene		
Fluorene		
Hexane		
Hydrogen cyanide	2.00E-05	2.00E-05
Isophoronedi-isocyanate	1.00E-08	1.00E-08
Methane	3.88E-03	1.47E-03
Naphthalene	9.64E-07	5.08E-07
Nitric oxide	3.55E-03	2.48E-03
Nitrogen dioxide	1.18E-03	7.49E-04
N-Nitrosodiethylamine		
N-Nitrosodiphenylamine	6.10E-07	2.29E-07
Olefins (VOs)		
Parafins (VOs)		
Particulates (PM-10)	1.59E-02	1.07E-02

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT Crane	JOB NUMBER 7636-BSØ-202140
SUBJECT Calculation of Lead Emission Factors for Incendiary Cage, Primer Pit + O	
BASED ON	DRAWING NUMBER

BY	CHECKED BY	APPROVED BY	DATE
MLeger	D. Irwin 10/8/97	J. Lucas 10/9/97	10/8/97

Incendiary Cage (Source 13-AB6)

Total Lead emissions: 7 lb/day
Hours of emissions/day: 10 hr/day

$\therefore$ Hourly emission rate = $\frac{\text{Total daily lead emissions}}{\text{Hours of Emission/day}}$

$= \frac{7 \text{ lb/day}}{10 \text{ hr/day}}$

$= 0.70$ lb/hr ✓

Total NEW treated: 5,000 lb NEW/hr

Emission Factor = $\frac{\text{Hourly Emission Rate}}{\text{Total NEW Treated}}$

$= \frac{0.70 \text{ lb/hr}}{5000 \text{ lb/hr}}$

$= 1.40E-4$ lb lead/lb NEW ✓

Primer Pit (Source 13-AB6)

Total Lead emissions: 8 lb/day
Hours of Emissions/day: 8 hr/day

Hourly emission rate = $\frac{8 \text{ lb/day}}{8 \text{ hr/day}} = 1.0$ lb/hr ✓

Total NEW treated: 37.5 lb NEW/hr

$\therefore$ Emission Factor = $\frac{1.0 \text{ lb/hr}}{37.5 \text{ lb/hr}}$

$= 2.67E-2$ lb lead/lb NEW ✓

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT Crane		JOB NUMBER 7636-BS0-20240	
SUBJECT Lead Emission Factors for Incendiary Cage Primer Pit & OD			
BASED ON		DRAWING NUMBER	
BY M. [illegible]	CHECKED BY D. [illegible] 10/8/97	APPROVED BY	DATE 10/8/97

OD (Source 3-D6)

Assume 35 lb of Pb Styphnate } emitted per day.
190 lb of Pb Azide

Pb Styphnate is 44.03% Pb
Pb Azide is 71.14% Pb

$$35 \text{ lb Pb Styphnate} \times \frac{44.03 \text{ lb Pb}}{100 \text{ lb Pb Styphnate}} = 15.4 \text{ lb Pb emitted} \checkmark$$

$$190 \text{ lb Pb Azide} \times \frac{71.14 \text{ lb Pb}}{100 \text{ lb Pb Azide}} = \underline{135.2 \text{ lb Pb emitted}} \checkmark$$

Total = 150.6 lb Pb emitted ✓

Assume all lead is emitted in 1-hr period:

$$\text{Hourly emission rate} = \frac{150.6 \text{ lb}}{1 \text{ hr}} = 150.6 \text{ lb/hr} \checkmark$$

Total NEW treated = 55,000 lb NEW/hr

$$\therefore \text{ Emission Factor} = \frac{150.6 \text{ lb/hr}}{55{,}000 \text{ lb NEW/hr}}$$

$$= 2.74 \text{ E-3} \ \frac{\text{lb lead}}{\text{lb NEW}} \checkmark$$

CALCULATION WORKSHEET Order No. 19116 (01-91)

CLIENT CRANE	JOB NUMBER CTO 35 7636
SUBJECT Casing Material to New Ratio	
BASED ON 1996 Operations Data	DRAWING NUMBER
BY J. LUCAS / CHECKED BY RRB	APPROVED BY / DATE 10/5/97

Casing Material/NEW ratio = $\frac{\text{TOTAL UNRECOVERED CASING MATERIAL}}{\text{TOTAL NET EXPLOSIVE WEIGHT}}$

Total Unrecovered Casing Material (TUCM)

TUCM = total gross weight of all materials − total packaging material − total casing material recovered

For 1996, operations,

Total gross weight of all materials = 6,418,683 lbs

Total packaging material = 960,000 lbs.

Total casing material recovered = 22,000 lbs.

Total Net Explosive Weight = 2,820,365 lbs.

TUCM = 6,418,683 − 960,000 − 22,000

= 5,436,683 lbs

Casing material to NEW ratio = $\frac{5,436,683}{2,820,365}$ = 1.93 : 1

Emission Factors: ABG Burn Pans - Propellant Burn

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
Phenanthrene		
Phenyldiisodecylphosphite	1.00E-08	1.00E-08
Phenol	4.47E-06	2.32E-06
Picric acid		
Pyrene	1.40E-07	6.01E-08
Resorcinol	1.00E-08	1.00E-08
Salicylic Acid	1.00E-08	1.00E-08
Styrene		
Sulfur dioxide	7.34E-04	2.52E-04
TNMHC	3.79E-04	2.24E-04
TO-12 (TOT.ORGANICS,C2-C15)		
Toluene		
Triacetin	1.00E-08	1.00E-08
Xylenes (isomers and mixture)		
HMX *		
RDX *		
2,4,6-Trinitrotoluene *		
2,4-Dinitrotoluene *	5.00E-06	5.00E-06
2,6-Dinitrotoluene *	5.00E-06	5.00E-06
Nitroglycerin *	4.00E-05	4.00E-05
Nitroguanidine *	4.77E-05	4.77E-05
Tetryl *		
Diphenylamine *		
2-Nitrodiphenylamine *		
Dibutylphthalate *	6.00E-06	6.00E-06
Diethylphthalate *		
Aluminum **	3.56E-05	3.56E-05
Antimony **		
Barium **	2.17E-04	2.17E-04
Chromium **		
Iron **		
Lead **		
Nickel **		
Silicon **		
Tin **	2.19E-04	2.19E-04
Zirconium **		
Aluminum ***		
Copper ***		
Manganese ***		
Zinc (Casing) ***		
Fiberglass ***		
Plastic ***		
Iron ***		

Emission Factors: ABG Burn Pans - Fuel Assisted

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	1.39E-08	1.00E-08
1,3-Butadiene		
1,3,5-Trinitrobenzene	8.44E-09	5.04E-09
1,4-Dichlorobenzene		
1,6-Dinitropyrene	1.00E-08	1.00E-08
2-Methyl naphthalene		
2-Methylphenol		
2-Naphthylamine	1.00E-08	1.00E-08
2-Nitronaphthalene	4.68E-08	2.62E-08
2-Nitrophenol	3.49E-07	1.60E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-08	1.00E-08
4-Nitrophenol		
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-08	1.00E-08
Acenaphthylene		
Acetophenone		
alpha,alpha-Dimethylphenethylamine		
Ammonia	2.00E-05	2.00E-05
Anthracene		
Aromatics (VOs, including benzene)		
Benzene	9.68E-06	5.60E-06
Benzo[a]pyrene	3.75E-07	1.49E-07
Benzo[b]fluoranthene		
Benz[c]acridine	1.00E-08	1.00E-08
Benzyl alcohol		
Benzo[k]fluoranthene		
Benz[a]anthracene	6.56E-08	3.26E-08
Butyl benzyl phthalate		
Carbon monoxide	6.14E-04	3.94E-04
Chrysene		
Dibenzofurans	4.81E-05	1.73E-05
Dibenz[a,h]anthracene	1.00E-08	1.00E-08
Diethylenetriamine	1.00E-08	1.00E-08
Dimethyl phthalate		
Di-n-octyl phthalate		
Di-n-propyladipate	1.00E-08	1.00E-08
Dioctylsebacate	1.00E-08	1.00E-08
Di(2-ethylhexyl)phthalate		
Ethyl benzene		
Fluoranthene		
Fluorene		
Hexane		
Hydrogen cyanide	2.00E-05	2.00E-05
Isophoronedi-isocyanate	1.00E-08	1.00E-08
Methane	3.88E-03	1.47E-03
Naphthalene	9.64E-07	5.08E-07
Nitric oxide	3.55E-03	2.48E-03
Nitrogen dioxide	1.18E-03	7.49E-04
N-Nitrosodiethylamine		
N-Nitrosodiphenylamine	6.10E-07	2.29E-07
Olefins (VOs)		
Parafins (VOs)		
Particulates (PM-10)	1.59E-02	1.07E-02

Emission Factors: ABG Burn Pans - Fuel Assisted

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
Phenanthrene		
Phenyldiisodecylphosphite	1.00E-08	1.00E-08
Phenol	4.47E-06	2.32E-06
Picric acid		
Pyrene	1.40E-07	6.01E-08
Resorcinol	1.00E-08	1.00E-08
Salicylic Acid	1.00E-08	1.00E-08
Styrene		
Sulfur dioxide	7.34E-04	2.52E-04
TNMHC	3.79E-04	2.24E-04
TO-12 (TOT.ORGANICS,C2-C15)		
Toluene		
Triacetin	1.00E-08	1.00E-08
Xylenes (isomers and mixture)		
HMX *	1.84E-07	1.84E-07
RDX *	6.90E-07	6.90E-07
2,4,6-Trinitrotoluene *	4.97E-07	4.97E-07
2,4-Dinitrotoluene *		
2,6-Dinitrotoluene *		
Nitroglycerin *		
Nitroguanidine *	1.05E-07	1.05E-07
Tetryl *	1.84E-07	1.84E-07
Diphenylamine *		
2-Nitrodiphenylamine *		
Dibutylphthalate *		
Diethylphthalate *		
Aluminum **	1.03E-02	1.03E-02
Antimony **		
Barium **	1.05E-04	1.05E-04
Chromium **		
Iron **		
Lead **	2.09E-04	2.09E-04
Nickel **		
Silicon **		
Tin **	1.06E-04	1.06E-04
Zirconium **		
Aluminum ***		
Copper ***		
Manganese ***		
Zinc (Casing) ***		
Fiberglass ***		
Plastic ***		
Iron ***		

Emission Factors: ABG - Dewatering Unit

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	1.39E-08	1.00E-08
1,3-Butadiene		
1,3,5-Trinitrobenzene	8.44E-09	5.04E-09
1,4-Dichlorobenzene		
1,6-Dinitropyrene	1.00E-08	1.00E-08
2-Methyl naphthalene		
2-Methylphenol		
2-Naphthylamine	1.00E-08	1.00E-08
2-Nitronaphthalene	4.68E-08	2.62E-08
2-Nitrophenol	3.49E-07	1.60E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-08	1.00E-08
4-Nitrophenol		
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-08	1.00E-08
Acenaphthylene		
Acetophenone		
alpha,alpha-Dimethylphenethylamine		
Ammonia	2.00E-05	2.00E-05
Anthracene		
Aromatics (VOs, including benzene)		
Benzene	9.68E-06	5.60E-06
Benzo[a]pyrene	3.75E-07	1.49E-07
Benzo[b]fluoranthene		
Benz[c]acridine	1.00E-08	1.00E-08
Benzyl alcohol		
Benzo[k]fluoranthene		
Benz[a]anthracene	6.56E-08	3.26E-08
Butyl benzyl phthalate		
Carbon monoxide	6.14E-04	3.94E-04
Chrysene		
Dibenzofurans	4.81E-05	1.73E-05
Dibenz[a,h]anthracene	1.00E-08	1.00E-08
Diethylenetriamine	1.00E-08	1.00E-08
Dimethyl phthalate		
Di-n-octyl phthalate		
Di-n-propyladipate	1.00E-08	1.00E-08
Dioctylsebacate	1.00E-08	1.00E-08
Di(2-ethylhexyl)phthalate		
Ethyl benzene		
Fluoranthene		
Fluorene		
Hexane		
Hydrogen cyanide	2.00E-05	2.00E-05
Isophoronedi-isocyanate	1.00E-08	1.00E-08
Methane	3.88E-03	1.47E-03
Naphthalene	9.64E-07	5.08E-07
Nitric oxide	3.55E-03	2.48E-03
Nitrogen dioxide	1.18E-03	7.49E-04
N-Nitrosodiethylamine		
N-Nitrosodiphenylamine	6.10E-07	2.29E-07
Olefins (VOs)		
Parafins (VOs)		
Particulates (PM-10)	1.59E-02	1.07E-02

Emission Factors: ABG - Dewatering Unit

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
Phenanthrene		
Phenyldiisodecylphosphite	1.00E-08	1.00E-08
Phenol	4.47E-06	2.32E-06
Picric acid		
Pyrene	1.40E-07	6.01E-08
Resorcinol	1.00E-08	1.00E-08
Salicylic Acid	1.00E-08	1.00E-08
Styrene		
Sulfur dioxide	7.34E-04	2.52E-04
TNMHC	3.79E-04	2.24E-04
TO-12 (TOT.ORGANICS,C2-C15)		
Toluene		
Triacetin	1.00E-08	1.00E-08
Xylenes (isomers and mixture)		
HMX *	2.92E-07	2.92E-07
RDX *	3.33E-07	3.33E-07
2,4,6-Trinitrotoluene *	7.45E-07	7.45E-07
2,4-Dinitrotoluene *		
2,6-Dinitrotoluene *		
Nitroglycerin *		
Nitroguanidine *		
Tetryl *	2.92E-07	2.92E-07
Diphenylamine *		
2-Nitrodiphenylamine *		
Dibutylphthalate *		
Diethylphthalate *		
Aluminum **	3.18E-02	3.18E-02
Antimony **		
Barium **		
Chromium **		
Iron **		
Lead **		
Nickel **		
Silicon **		
Tin **		
Zirconium **		
Aluminum ***		
Copper ***		
Manganese ***		
Zinc (Casing) ***		
Fiberglass ***		
Plastic ***		
Iron ***		

Emission Factors: ABG - Primer Pit

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	1.39E-08	1.00E-08
1,3-Butadiene		
1,3,5-Trinitrobenzene	8.44E-09	5.04E-09
1,4-Dichlorobenzene		
1,6-Dinitropyrene	1.00E-08	1.00E-08
2-Methyl naphthalene		
2-Methylphenol		
2-Naphthylamine	1.00E-08	1.00E-08
2-Nitronaphthalene	4.68E-08	2.62E-08
2-Nitrophenol	3.49E-07	1.60E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-08	1.00E-08
4-Nitrophenol		
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-08	1.00E-08
Acenaphthylene		
Acetophenone		
alpha,alpha-Dimethylphenethylamine		
Ammonia	2.00E-05	2.00E-05
Anthracene		
Aromatics (VOs, including benzene)		
Benzene	9.68E-06	5.60E-06
Benzo[a]pyrene	3.75E-07	1.49E-07
Benzo[b]fluoranthene		
Benz[c]acridine	1.00E-08	1.00E-08
Benzyl alcohol		
Benzo[k]fluoranthene		
Benz[a]anthracene	6.56E-08	3.26E-08
Butyl benzyl phthalate		
Carbon monoxide	6.14E-04	3.94E-04
Chrysene		
Dibenzofurans	4.81E-05	1.73E-05
Dibenz[a,h]anthracene	1.00E-08	1.00E-08
Diethylenetriamine	1.00E-08	1.00E-08
Dimethyl phthalate		
Di-n-octyl phthalate		
Di-n-propyladipate	1.00E-08	1.00E-08
Dioctylsebacate	1.00E-08	1.00E-08
Di(2-ethylhexyl)phthalate		
Ethyl benzene		
Fluoranthene		
Fluorene		
Hexane		
Hydrogen cyanide	2.00E-05	2.00E-05
Isophoronedi-isocyanate	1.00E-08	1.00E-08
Methane	3.88E-03	1.47E-03
Naphthalene	9.64E-07	5.08E-07
Nitric oxide	3.55E-03	2.48E-03
Nitrogen dioxide	1.18E-03	7.49E-04
N-Nitrosodiethylamine		
N-Nitrosodiphenylamine	6.10E-07	2.29E-07
Olefins (VOs)		
Parafins (VOs)		
Particulates (PM-10)	1.59E-02	1.07E-02

Emission Factors: ABG - Primer Pit

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
Phenanthrene		
Phenyldiisodecylphosphite	1.00E-08	1.00E-08
Phenol	4.47E-06	2.32E-06
Picric acid		
Pyrene	1.40E-07	6.01E-08
Resorcinol	1.00E-08	1.00E-08
Salicylic Acid	1.00E-08	1.00E-08
Styrene		
Sulfur dioxide	7.34E-04	2.52E-04
TNMHC	3.79E-04	2.24E-04
TO-12 (TOT.ORGANICS,C2-C15)		
Toluene		
Triacetin	1.00E-08	1.00E-08
Xylenes (isomers and mixture)		
HMX *	2.64E-08	2.64E-08
RDX *	1.47E-05	1.47E-05
2,4,6-Trinitrotoluene *	1.43E-06	1.43E-06
2,4-Dinitrotoluene *	5.30E-06	5.30E-06
2,6-Dinitrotoluene *	5.30E-06	5.30E-06
Nitroglycerin *	3.11E-06	3.11E-06
Nitroguanidine *		
Tetryl *	3.29E-07	3.29E-07
Diphenylamine *		
2-Nitrodiphenylamine *		
Dibutylphthalate *	1.15E-06	1.15E-06
Diethylphthalate *	5.00E-09	5.00E-09
Aluminum **	2.49E-02	2.49E-02
Antimony **	1.91E-04	1.91E-04
Barium **	4.86E-03	4.86E-03
Chromium ** +	1.11E-04	1.11E-04
Iron **	2.49E-03	2.49E-03
Lead **	2.67E-02	2.67E-02
Nickel **	1.83E-03	1.83E-03
Silicon **	9.47E-03	9.47E-03
Tin **	1.54E-03	1.54E-03
Zirconium **	2.54E-03	2.54E-03
Aluminum ***		
Copper ***		
Manganese ***		
Zinc (Casing) ***		
Fiberglass ***		
Plastic ***		
Iron ***		
Emission Factor for PICs is U95% value, unless undefined. If U95% value is undefined, Emission Factor is Max Value.		
* Emission Factor for organic constituents is based on 99.99% DRE.		
** Emission Factor for metal constituents is based on mass balance.		
*** Emission Factor for casing constituents is based on mass balance.		
+ Chromium emissions consist of 90% trivalent chromium, 10% hexavalent chromium.		

Emission Factors: ABG - Incendiary Cage

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	1.39E-08	1.00E-08
1,3-Butadiene		
1,3,5-Trinitrobenzene	8.44E-09	5.04E-09
1,4-Dichlorobenzene		
1,6-Dinitropyrene	1.00E-08	1.00E-08
2-Methyl naphthalene		
2-Methylphenol		
2-Naphthylamine	1.00E-08	1.00E-08
2-Nitronaphthalene	4.68E-08	2.62E-08
2-Nitrophenol	3.49E-07	1.60E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-08	1.00E-08
4-Nitrophenol		
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-08	1.00E-08
Acenaphthylene		
Acetophenone		
alpha,alpha-Dimethylphenethylamine		
Ammonia	2.00E-05	2.00E-05
Anthracene		
Aromatics (VOs, including benzene)		
Benzene	9.68E-06	5.60E-06
Benzo[a]pyrene	3.75E-07	1.49E-07
Benzo[b]fluoranthene		
Benz[c]acridine	1.00E-08	1.00E-08
Benzyl alcohol		
Benzo[k]fluoranthene		
Benz[a]anthracene	6.56E-08	3.26E-08
Butyl benzyl phthalate		
Carbon monoxide	6.14E-04	3.94E-04
Chrysene		
Dibenzofurans	4.81E-05	1.73E-05
Dibenz[a,h]anthracene	1.00E-08	1.00E-08
Diethylenetriamine	1.00E-08	1.00E-08
Dimethyl phthalate		
Di-n-octyl phthalate		
Di-n-propyladipate	1.00E-08	1.00E-08
Dioctylsebacate	1.00E-08	1.00E-08
Di(2-ethylhexyl)phthalate		
Ethyl benzene		
Fluoranthene		
Fluorene		
Hexane		
Hydrogen cyanide	2.00E-05	2.00E-05
Isophoronedi-isocyanate	1.00E-08	1.00E-08
Methane	3.88E-03	1.47E-03
Naphthalene	9.64E-07	5.08E-07
Nitric oxide	3.55E-03	2.48E-03
Nitrogen dioxide	1.18E-03	7.49E-04
N-Nitrosodiethylamine		
N-Nitrosodiphenylamine	6.10E-07	2.29E-07
Olefins (VOs)		
Parafins (VOs)		
Particulates (PM-10)	1.59E-02	1.07E-02

Emission Factors: ABG - Incendiary Cage

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
Phenanthrene		
Phenyldiisodecylphosphite	1.00E-08	1.00E-08
Phenol	4.47E-06	2.32E-06
Picric acid		
Pyrene	1.40E-07	6.01E-08
Resorcinol	1.00E-08	1.00E-08
Salicylic Acid	1.00E-08	1.00E-08
Styrene		
Sulfur dioxide	7.34E-04	2.52E-04
TNMHC	3.79E-04	2.24E-04
TO-12 (TOT.ORGANICS,C2-C15)		
Toluene		
Triacetin	1.00E-08	1.00E-08
Xylenes (isomers and mixture)		
HMX *		
RDX *	2.89E-07	2.89E-07
2,4,6-Trinitrotoluene *		
2,4-Dinitrotoluene *	1.37E-08	1.37E-08
2,6-Dinitrotoluene *	1.37E-08	1.37E-08
Nitroglycerin *	1.02E-07	1.02E-07
Nitroguanidine *	4.72E-08	4.72E-08
Tetryl *		
Diphenylamine *		
2-Nitrodiphenylamine *		
Dibutylphthalate *	4.99E-09	4.99E-09
Diethylphthalate *		
Aluminum **	1.67E-03	1.67E-03
Antimony **		
Barium **		
Chromium ** +		
Iron **	7.78E-05	7.78E-05
Lead **	1.40E-04	1.40E-04
Nickel **		
Silicon **		
Tin **		
Zirconium **		
Aluminum ***		
Copper ***		
Manganese ***		
Zinc (Casing) ***		
Fiberglass ***		
Plastic ***		
Iron ***		
Emission Factor for PICs is U95% value, unless undefined. If U95% value is undefined, Emission Factor is Max Value.		
* Emission Factor for organic constituents is based on 99.99% DRE.		
** Emission Factor for metal constituents is based on mass balance.		
*** Emission Factor for casing constituents is based on mass balance.		
+ Chromium emissions consist of 90% trivalent chromium, 10% hexavalent chromium.		

Emission Factors: ORR - Fuel Assisted

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	1.39E-08	1.00E-08
1,3-Butadiene		
1,3,5-Trinitrobenzene	8.44E-09	5.04E-09
1,4-Dichlorobenzene		
1,6-Dinitropyrene	1.00E-08	1.00E-08
2-Methyl naphthalene		
2-Methylphenol		
2-Naphthylamine	1.00E-08	1.00E-08
2-Nitronaphthalene	4.68E-08	2.62E-08
2-Nitrophenol	3.49E-07	1.60E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-08	1.00E-08
4-Nitrophenol		
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-08	1.00E-08
Acenaphthylene		
Acetophenone		
alpha,alpha-Dimethylphenethylamine		
Ammonia	2.00E-05	2.00E-05
Anthracene		
Aromatics (VOs, including benzene)		
Benzene	9.68E-06	5.60E-06
Benzo[a]pyrene	3.75E-07	1.49E-07
Benzo[b]fluoranthene		
Benz[c]acridine	1.00E-08	1.00E-08
Benzyl alcohol		
Benzo[k]fluoranthene		
Benz[a]anthracene	6.56E-08	3.26E-08
Butyl benzyl phthalate		
Carbon monoxide	6.14E-04	3.94E-04
Chrysene		
Dibenzofurans	4.81E-05	1.73E-05
Dibenz[a,h]anthracene	1.00E-08	1.00E-08
Diethylenetriamine	1.00E-08	1.00E-08
Dimethyl phthalate		
Di-n-octyl phthalate		
Di-n-propyladipate	1.00E-08	1.00E-08
Dioctylsebacate	1.00E-08	1.00E-08
Di(2-ethylhexyl)phthalate		
Ethyl benzene		
Fluoranthene		
Fluorene		
Hexane		
Hydrogen cyanide	2.00E-05	2.00E-05
Isophoronedi-isocyanate	1.00E-08	1.00E-08
Methane	3.88E-03	1.47E-03
Naphthalene	9.64E-07	5.08E-07
Nitric oxide	3.55E-03	2.48E-03
Nitrogen dioxide	1.18E-03	7.49E-04
N-Nitrosodiethylamine		
N-Nitrosodiphenylamine	6.10E-07	2.29E-07
Olefins (VOs)		
Parafins (VOs)		
Particulates (PM-10)	1.59E-02	1.07E-02

Emission Factors: ORR - Fuel Assisted

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
Phenanthrene		
Phenyldiisodecylphosphite	1.00E-08	1.00E-08
Phenol	4.47E-06	2.32E-06
Picric acid		
Pyrene	1.40E-07	6.01E-08
Resorcinol	1.00E-08	1.00E-08
Salicylic Acid	1.00E-08	1.00E-08
Styrene		
Sulfur dioxide	7.34E-04	2.52E-04
TNMHC	3.79E-04	2.24E-04
TO-12 (TOT.ORGANICS,C2-C15)		
Toluene		
Triacetin	1.00E-08	1.00E-08
Xylenes (isomers and mixture)		
HMX *		
RDX *	1.05E-06	1.05E-06
2,4,6-Trinitrotoluene *	2.60E-07	2.60E-07
2,4-Dinitrotoluene *		
2,6-Dinitrotoluene *		
Nitroglycerin *		
Nitroguanidine *		
Tetryl *		
Diphenylamine *		
2-Nitrodiphenylamine *		
Dibutylphthalate *		
Diethylphthalate *		
Aluminum **		
Antimony **		
Barium **		
Chromium **		
Iron **		
Lead **		
Nickel **		
Silicon **		
Tin **		
Zirconium **		
Aluminum ***		
Copper ***		
Manganese ***		
Zinc (Casing) ***		
Fiberglass ***		
Plastic ***		
Iron ***		

Emission Factors: OD

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
1-Nitropyrene	4.08E-08	2.66E-08
1,3-Butadiene	1.44E-05	6.56E-06
1,3,5-Trinitrobenzene	3.94E-07	1.82E-07
1,4-Dichlorobenzene	2.79E-07	2.60E-07
1,6-Dinitropyrene		
2-Methyl naphthalene	1.70E-06	8.30E-07
2-Methylphenol	7.99E-07	6.16E-07
2-Naphthylamine		
2-Nitronaphthalene	9.98E-08	5.88E-08
2-Nitrophenol		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)		
4-Nitrophenol	9.12E-07	1.75E-07
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide		
Acenaphthylene	4.27E-07	2.56E-07
Acetophenone	1.76E-07	1.54E-07
alpha,alpha-Dimethylphenethylamine	9.90E-07	9.90E-07
Ammonia	2.92E-04	2.92E-04
Anthracene	2.06E-07	1.56E-07
Aromatics (VOs, including benzene)	1.84E-03	7.20E-04
Benzene	2.39E-04	1.30E-04
Benzo[a]pyrene	1.39E-07	8.20E-08
Benzo[b]fluoranthene	3.49E-07	1.20E-07
Benz[c]acridine		
Benzyl alcohol	1.25E-07	9.57E-08
Benzo[k]fluoranthene	2.79E-07	9.60E-08
Benz[a]anthracene	7.55E-08	4.72E-08
Butyl benzyl phthalate	8.37E-07	5.14E-07
Carbon monoxide	5.15E-02	3.88E-02
Chrysene	2.30E-07	2.30E-07
Dibenzofurans	5.21E-07	2.45E-07
Dibenz[a,h]anthracene	4.30E-07	4.30E-07
Diethylenetriamine		
Dimethyl phthalate	3.41E-07	2.40E-07
Di-n-octyl phthalate	3.35E-06	1.66E-06
Di-n-propyladipate		
Dioctylsebacate		
Di(2-ethylhexyl)phthalate	2.63E-06	1.92E-06
Ethyl benzene	2.38E-05	1.03E-05
Fluoranthene	7.46E-07	4.18E-07
Fluorene	2.96E-07	2.46E-07
Hexane	1.86E-05	8.04E-06
Hydrogen cyanide	3.48E-03	2.27E-03
Isophoronedi-isocyanate		
Methane	3.09E-03	1.97E-03
Naphthalene	6.96E-06	3.01E-06
Nitric oxide	5.02E-03	2.44E-03
Nitrogen dioxide	2.04E-03	1.34E-03
N-Nitrosodiethylamine	1.20E-07	1.20E-07
N-Nitrosodiphenylamine	1.05E-06	4.15E-07
Olefins (VOs)	1.21E-03	6.63E-04
Parafins (VOs)	1.03E-04	8.49E-05
Particulates (PM-10)	4.00E-01	2.40E-01

Emission Factors: OD

Contaminant	Short-Term Emission Factor (lb/lb)	Long-Term Emission Factor (lb/lb)
Phenanthrene	1.07E-06	5.39E-07
Phenyldiisodecylphosphite		
Phenol	3.85E-06	1.82E-06
Picric acid	5.00E-08	5.00E-08
Pyrene	6.00E-07	3.29E-07
Resorcinol		
Salicylic Acid		
Styrene	1.03E-03	4.28E-04
Sulfur dioxide	2.23E-04	2.23E-04
TNMHC	2.20E-03	1.58E-03
TO-12 (TOT.ORGANICS,C2-C15)	4.98E-03	2.46E-03
Toluene	1.56E-04	6.67E-05
Triacetin		
Xylenes (isomers and mixture)	1.34E-04	5.42E-05
HMX	1.40E-04	1.40E-04
RDX	2.40E-04	2.40E-04
2,4,6-Trinitrotoluene *	1.72E-05	1.72E-05
2,4-Dinitrotoluene	5.20E-06	5.20E-06
2,6-Dinitrotoluene	4.10E-06	4.10E-06
Nitroglycerin *	1.89E-06	1.89E-06
Nitroguanidine *	1.84E-06	1.84E-06
Tetryl *	3.77E-07	3.77E-07
Diphenylamine	2.30E-07	2.30E-07
2-Nitrodiphenylamine	2.90E-07	2.90E-07
Dibutylphthalate	3.80E-05	3.80E-05
Diethylphthalate	5.50E-07	5.50E-07
Aluminum **	1.13E-02	1.13E-02
Antimony **	3.58E-05	3.58E-05
Barium **	1.46E-03	1.46E-03
Chromium ** +	2.97E-04	2.97E-04
Iron **	5.87E-06	5.87E-06
Lead **	2.74E-03	2.74E-03
Nickel **	5.66E-06	5.66E-06
Silicon **		
Tin **	2.98E-04	2.98E-04
Zirconium **	3.77E-06	3.77E-06
Aluminum ***	3.86E-02	3.86E-02
Copper ***	6.78E-02	6.78E-02
Manganese ***	1.15E-02	1.15E-02
Zinc (Casing) ***	8.87E-03	8.87E-03
Fiberglass ***	1.93E-02	1.93E-02
Plastic ***	1.93E-02	1.93E-02
Iron ***	1.76E+00	1.76E+00

Emission Factor for PICs is U95% value, unless undefined. If U95% value is undefined, Emission Factor is Max Value.

* Emission Factor for organic constituents is based on 99.99% DRE.

** Emission Factor for metal constituents is based on mass balance.

*** Emission Factor for casing constituents is based on mass balance.

\+ Chromium emissions consist of 90% trivalent chromium, 10% hexavalent chromium.

APPENDIX D-6

AVERAGING PERIOD TOTAL EMISSIONS FOR TREATMENT OPERATIONS

Emissions: 3a - ABG
OB of Propellants

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	2.09E-04	4.18E-04	6.27E-04	1.04E-03	1.75E-02	7.00E-02
1,3-Butadiene						
1,3,5-Trinitrobenzene	1.27E-04	2.53E-04	3.80E-04	6.33E-04	8.83E-03	3.53E-02
1,4-Dichlorobenzene						
1,6-Dinitropyrene	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
2-Nitronaphthalene	7.02E-04	1.40E-03	2.10E-03	3.51E-03	4.59E-02	1.84E-01
2-Nitrophenol	5.24E-03	1.05E-02	1.57E-02	2.62E-02	2.80E-01	1.12E+00
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	3.00E-01	6.00E-01	9.00E-01	1.50E+00	3.50E+01	1.40E+02
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	1.45E-01	2.90E-01	4.36E-01	7.26E-01	9.81E+00	3.92E+01
Benzo[a]pyrene	5.62E-03	1.12E-02	1.69E-02	2.81E-02	2.61E-01	1.04E+00
Benzo[b]fluoranthene						
Benz[c]acridine	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	9.83E-04	1.97E-03	2.95E-03	4.92E-03	5.70E-02	2.28E-01
Butyl benzyl phthalate						
Carbon monoxide	9.21E+00	1.84E+01	2.76E+01	4.60E+01	6.90E+02	2.76E+03
Chrysene						
Dibenzofurans	7.21E-01	1.44E+00	2.16E+00	3.60E+00	3.02E+01	1.21E+02
Dibenz[a,h]anthracene	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Diethylenetriamine	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Dioctylsebacate	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	3.00E-01	6.00E-01	9.00E-01	1.50E+00	3.50E+01	1.40E+02
Isophoronedi-isocyanate	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Methane	5.83E+01	1.17E+02	1.75E+02	2.91E+02	2.58E+03	1.03E+04
Naphthalene	1.45E-02	2.89E-02	4.34E-02	7.23E-02	8.89E-01	3.55E+00
Nitric oxide	5.32E+01	1.06E+02	1.60E+02	2.66E+02	4.34E+03	1.73E+04
Nitrogen dioxide	1.77E+01	3.54E+01	5.31E+01	8.84E+01	1.31E+03	5.24E+03
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	9.15E-03	1.83E-02	2.74E-02	4.57E-02	4.00E-01	1.60E+00
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	2.38E+02	4.77E+02	7.15E+02	1.19E+03	1.87E+04	7.47E+04
Phenanthrene						
Phenyldiisodecylphosphite	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Phenol	6.71E-02	1.34E-01	2.01E-01	3.35E-01	4.05E+00	1.62E+01
Picric acid						
Pyrene	2.10E-03	4.20E-03	6.29E-03	1.05E-02	1.05E-01	4.21E-01
Resorcinol	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02

Emissions: 3a - ABG
OB of Propellants

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Styrene						
Sulfur dioxide	1.10E+01	2.20E+01	3.30E+01	5.51E+01	4.41E+02	1.76E+03
TNMHC	5.68E+00	1.14E+01	1.70E+01	2.84E+01	3.92E+02	1.57E+03
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Xylenes (isomers and mixture)						
HMX						
RDX						
2,4,6-Trinitrotoluene						
2,4-Dinitrotoluene	7.50E-02	1.50E-01	2.25E-01	3.75E-01	8.75E+00	3.50E+01
2,6-Dinitrotoluene	7.50E-02	1.50E-01	2.25E-01	3.75E-01	8.75E+00	3.50E+01
Nitroglycerin	6.00E-01	1.20E+00	1.80E+00	3.00E+00	7.00E+01	2.80E+02
Nitroguanidine	7.16E-01	1.43E+00	2.15E+00	3.58E+00	8.35E+01	3.34E+02
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate	9.00E-02	1.80E-01	2.70E-01	4.50E-01	1.05E+01	4.20E+01
Diethylphthalate						
Aluminum	5.34E-01	1.07E+00	1.60E+00	2.67E+00	6.23E+01	2.49E+02
Antimony						
Barium	3.26E+00	6.51E+00	9.77E+00	1.63E+01	3.80E+02	1.52E+03
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin	3.29E+00	6.57E+00	9.86E+00	1.64E+01	3.83E+02	1.53E+03
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 3b - ABG
OB of Explosives

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	6.96E-05	1.39E-04	2.09E-04	3.48E-04	5.83E-03	2.33E-02
1,3-Butadiene						
1,3,5-Trinitrobenzene	4.22E-05	8.44E-05	1.27E-04	2.11E-04	2.94E-03	1.17E-02
1,4-Dichlorobenzene						
1,6-Dinitropyrene	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
2-Nitronaphthalene	2.34E-04	4.68E-04	7.02E-04	1.17E-03	1.53E-02	6.11E-02
2-Nitrophenol	1.75E-03	3.49E-03	5.24E-03	8.73E-03	9.32E-02	3.73E-01
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	1.00E-01	2.00E-01	3.00E-01	5.00E-01	1.17E+01	4.66E+01
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	4.84E-02	9.68E-02	1.45E-01	2.42E-01	3.26E+00	1.31E+01
Benzo[a]pyrene	1.87E-03	3.75E-03	5.62E-03	9.37E-03	8.69E-02	3.48E-01
Benzo[b]fluoranthene						
Benz[c]acridine	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	3.28E-04	6.56E-04	9.83E-04	1.64E-03	1.90E-02	7.59E-02
Butyl benzyl phthalate						
Carbon monoxide	3.07E+00	6.14E+00	9.21E+00	1.53E+01	2.30E+02	9.19E+02
Chrysene						
Dibenzofurans	2.40E-01	4.81E-01	7.21E-01	1.20E+00	1.01E+01	4.02E+01
Dibenz[a,h]anthracene	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Diethylenetriamine	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Dioctylsebacate	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	1.00E-01	2.00E-01	3.00E-01	5.00E-01	1.17E+01	4.66E+01
Isophoronedi-isocyanate	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Methane	1.94E+01	3.88E+01	5.83E+01	9.71E+01	8.58E+02	3.43E+03
Naphthalene	4.82E-03	9.64E-03	1.45E-02	2.41E-02	2.96E-01	1.18E+00
Nitric oxide	1.77E+01	3.55E+01	5.32E+01	8.87E+01	1.44E+03	5.77E+03
Nitrogen dioxide	5.90E+00	1.18E+01	1.77E+01	2.95E+01	4.36E+02	1.74E+03
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	3.05E-03	6.10E-03	9.15E-03	1.52E-02	1.33E-01	5.33E-01
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	7.95E+01	1.59E+02	2.38E+02	3.97E+02	6.21E+03	2.49E+04
Phenanthrene						
Phenyldiisodecylphosphite	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Phenol	2.24E-02	4.47E-02	6.71E-02	1.12E-01	1.35E+00	5.40E+00
Picric acid						
Pyrene	6.99E-04	1.40E-03	2.10E-03	3.50E-03	3.50E-02	1.40E-01
Resorcinol	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02

Emissions: 3b - ABG
OB of Explosives

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Styrene						
Sulfur dioxide	3.67E+00	7.34E+00	1.10E+01	1.84E+01	1.47E+02	5.87E+02
TNMHC	1.89E+00	3.79E+00	5.68E+00	9.47E+00	1.31E+02	5.22E+02
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	5.00E-05	1.00E-04	1.50E-04	2.50E-04	5.83E-03	2.33E-02
Xylenes (isomers and mixture)						
HMX						
RDX						
2,4,6-Trinitrotoluene						
2,4-Dinitrotoluene	2.50E-02	5.00E-02	7.50E-02	1.25E-01	2.91E+00	1.17E+01
2,6-Dinitrotoluene	2.50E-02	5.00E-02	7.50E-02	1.25E-01	2.91E+00	1.17E+01
Nitroglycerin	2.00E-01	4.00E-01	6.00E-01	1.00E+00	2.33E+01	9.32E+01
Nitroguanidine	2.39E-01	4.77E-01	7.16E-01	1.19E+00	2.78E+01	1.11E+02
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate	3.00E-02	6.00E-02	9.00E-02	1.50E-01	3.50E+00	1.40E+01
Diethylphthalate						
Aluminum	1.78E-01	3.56E-01	5.34E-01	8.90E-01	2.07E+01	8.29E+01
Antimony						
Barium	1.09E+00	2.17E+00	3.26E+00	5.43E+00	1.26E+02	5.06E+02
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin	1.10E+00	2.19E+00	3.29E+00	5.48E+00	1.28E+02	5.10E+02
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 3c - ABG
OB of Production Scrap

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	2.09E-04	4.18E-04	6.27E-04	1.04E-03	1.75E-02	7.00E-02
1,3-Butadiene						
1,3,5-Trinitrobenzene	1.27E-04	2.53E-04	3.80E-04	6.33E-04	8.83E-03	3.53E-02
1,4-Dichlorobenzene						
1,6-Dinitropyrene	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
2-Nitronaphthalene	7.02E-04	1.40E-03	2.10E-03	3.51E-03	4.59E-02	1.84E-01
2-Nitrophenol	5.24E-03	1.05E-02	1.57E-02	2.62E-02	2.80E-01	1.12E+00
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	3.00E-01	6.00E-01	9.00E-01	1.50E+00	3.50E+01	1.40E+02
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	1.45E-01	2.90E-01	4.36E-01	7.26E-01	9.81E+00	3.92E+01
Benzo[a]pyrene	5.62E-03	1.12E-02	1.69E-02	2.81E-02	2.61E-01	1.04E+00
Benzo[b]fluoranthene						
Benz[c]acridine	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	9.83E-04	1.97E-03	2.95E-03	4.92E-03	5.70E-02	2.28E-01
Butyl benzyl phthalate						
Carbon monoxide	9.21E+00	1.84E+01	2.76E+01	4.60E+01	6.90E+02	2.76E+03
Chrysene						
Dibenzofurans	7.21E-01	1.44E+00	2.16E+00	3.60E+00	3.02E+01	1.21E+02
Dibenz[a,h]anthracene	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Diethylenetriamine	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Dioctylsebacate	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	3.00E-01	6.00E-01	9.00E-01	1.50E+00	3.50E+01	1.40E+02
Isophoronedi-isocyanate	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Methane	5.83E+01	1.17E+02	1.75E+02	2.91E+02	2.58E+03	1.03E+04
Naphthalene	1.45E-02	2.89E-02	4.34E-02	7.23E-02	8.89E-01	3.55E+00
Nitric oxide	5.32E+01	1.06E+02	1.60E+02	2.66E+02	4.34E+03	1.73E+04
Nitrogen dioxide	1.77E+01	3.54E+01	5.31E+01	8.84E+01	1.31E+03	5.24E+03
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	9.15E-03	1.83E-02	2.74E-02	4.57E-02	4.00E-01	1.60E+00
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	2.38E+02	4.77E+02	7.15E+02	1.19E+03	1.87E+04	7.47E+04
Phenanthrene						
Phenyldiisodecylphosphite	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Phenol	6.71E-02	1.34E-01	2.01E-01	3.35E-01	4.05E+00	1.62E+01
Picric acid						
Pyrene	2.10E-03	4.20E-03	6.29E-03	1.05E-02	1.05E-01	4.21E-01
Resorcinol	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02

Emissions: 3c - ABG
OB of Production Scrap

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Styrene						
Sulfur dioxide	1.10E+01	2.20E+01	3.30E+01	5.51E+01	4.41E+02	1.76E+03
TNMHC	5.68E+00	1.14E+01	1.70E+01	2.84E+01	3.92E+02	1.57E+03
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	1.50E-04	3.00E-04	4.50E-04	7.50E-04	1.75E-02	7.00E-02
Xylenes (isomers and mixture)						
HMX						
RDX						
2,4,6-Trinitrotoluene						
2,4-Dinitrotoluene	7.50E-02	1.50E-01	2.25E-01	3.75E-01	8.75E+00	3.50E+01
2,6-Dinitrotoluene	7.50E-02	1.50E-01	2.25E-01	3.75E-01	8.75E+00	3.50E+01
Nitroglycerin	6.00E-01	1.20E+00	1.80E+00	3.00E+00	7.00E+01	2.80E+02
Nitroguanidine	7.16E-01	1.43E+00	2.15E+00	3.58E+00	8.35E+01	3.34E+02
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate	9.00E-02	1.80E-01	2.70E-01	4.50E-01	1.05E+01	4.20E+01
Diethylphthalate						
Aluminum	5.34E-01	1.07E+00	1.60E+00	2.67E+00	6.23E+01	2.49E+02
Antimony						
Barium	3.26E+00	6.51E+00	9.77E+00	1.63E+01	3.80E+02	1.52E+03
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin	3.29E+00	6.57E+00	9.86E+00	1.64E+01	3.83E+02	1.53E+03
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 6 - ABG
OB of Red Phosphorus

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	5.57E-06	1.11E-05	2.23E-05	2.23E-05	2.50E-04	1.00E-03
1,3-Butadiene						
1,3,5-Trinitrobenzene	3.38E-06	6.75E-06	1.35E-05	1.35E-05	1.26E-04	5.04E-04
1,4-Dichlorobenzene						
1,6-Dinitropyrene	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
2-Nitronaphthalene	1.87E-05	3.74E-05	7.48E-05	7.48E-05	6.56E-04	2.62E-03
2-Nitrophenol	1.40E-04	2.79E-04	5.59E-04	5.59E-04	4.00E-03	1.60E-02
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	8.00E-03	1.60E-02	3.20E-02	3.20E-02	5.00E-01	2.00E+00
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	3.87E-03	7.74E-03	1.55E-02	1.55E-02	1.40E-01	5.60E-01
Benzo[a]pyrene	1.50E-04	3.00E-04	6.00E-04	6.00E-04	3.73E-03	1.49E-02
Benzo[b]fluoranthene						
Benz[c]acridine	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	2.62E-05	5.24E-05	1.05E-04	1.05E-04	8.14E-04	3.26E-03
Butyl benzyl phthalate						
Carbon monoxide	2.46E-01	4.91E-01	9.82E-01	9.82E-01	9.86E+00	3.94E+01
Chrysene						
Dibenzofurans	1.92E-02	3.85E-02	7.69E-02	7.69E-02	4.32E-01	1.73E+00
Dibenz[a,h]anthracene	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Diethylenetriamine	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Dioctylsebacate	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	8.00E-03	1.60E-02	3.20E-02	3.20E-02	5.00E-01	2.00E+00
Isophoronedi-isocyanate	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Methane	1.55E+00	3.11E+00	6.21E+00	6.21E+00	3.68E+01	1.47E+02
Naphthalene	3.86E-04	7.71E-04	1.54E-03	1.54E-03	1.27E-02	5.08E-02
Nitric oxide	1.42E+00	2.84E+00	5.68E+00	5.68E+00	6.19E+01	2.48E+02
Nitrogen dioxide	4.72E-01	9.43E-01	1.89E+00	1.89E+00	1.87E+01	7.49E+01
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	2.44E-04	4.88E-04	9.76E-04	9.76E-04	5.72E-03	2.29E-02
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	6.36E+00	1.27E+01	2.54E+01	2.54E+01	2.67E+02	1.07E+03
Phenanthrene						
Phenyldiisodecylphosphite	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Phenol	1.79E-03	3.58E-03	7.15E-03	7.15E-03	5.79E-02	2.32E-01
Picric acid						
Pyrene	5.59E-05	1.12E-04	2.24E-04	2.24E-04	1.50E-03	6.01E-03
Resorcinol	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03

Emissions: 6 - ABG
OB of Red Phosphorus

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Styrene						
Sulfur dioxide	2.94E-01	5.87E-01	1.17E+00	1.17E+00	6.30E+00	2.52E+01
TNMHC	1.52E-01	3.03E-01	6.06E-01	6.06E-01	5.61E+00	2.24E+01
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	4.00E-06	8.00E-06	1.60E-05	1.60E-05	2.50E-04	1.00E-03
Xylenes (isomers and mixture)						
HMX	7.36E-05	1.47E-04	2.94E-04	2.94E-04	4.60E-03	1.84E-02
RDX	2.76E-04	5.52E-04	1.10E-03	1.10E-03	1.73E-02	6.90E-02
2,4,6-Trinitrotoluene	1.99E-04	3.98E-04	7.95E-04	7.95E-04	1.24E-02	4.97E-02
2,4-Dinitrotoluene						
2,6-Dinitrotoluene						
Nitroglycerin						
Nitroguanidine	4.20E-05	8.40E-05	1.68E-04	1.68E-04	2.63E-03	1.05E-02
Tetryl	7.36E-05	1.47E-04	2.94E-04	2.94E-04	4.60E-03	1.84E-02
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate						
Diethylphthalate						
Aluminum	4.12E+00	8.24E+00	1.65E+01	1.65E+01	2.58E+02	1.03E+03
Antimony						
Barium	4.20E-02	8.40E-02	1.68E-01	1.68E-01	2.63E+00	1.05E+01
Chromium +						
Iron						
Lead	8.36E-02	1.67E-01	3.34E-01	3.34E-01	5.23E+00	2.09E+01
Nickel						
Silicon						
Tin	4.24E-02	8.48E-02	1.70E-01	1.70E-01	2.65E+00	1.06E+01
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 7 - ABG
OB of Pyrotechnics

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	1.39E-06	1.39E-06	2.79E-06	2.79E-06	2.80E-05	1.12E-04
1,3-Butadiene						
1,3,5-Trinitrobenzene	8.44E-07	8.44E-07	1.69E-06	1.69E-06	1.41E-05	5.65E-05
1,4-Dichlorobenzene						
1,6-Dinitropyrene	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
2-Nitronaphthalene	4.68E-06	4.68E-06	9.35E-06	9.35E-06	7.35E-05	2.94E-04
2-Nitrophenol	3.49E-05	3.49E-05	6.99E-05	6.99E-05	4.48E-04	1.79E-03
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	2.00E-03	2.00E-03	4.00E-03	4.00E-03	5.60E-02	2.24E-01
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	9.68E-04	9.68E-04	1.94E-03	1.94E-03	1.57E-02	6.28E-02
Benzo[a]pyrene	3.75E-05	3.75E-05	7.50E-05	7.50E-05	4.18E-04	1.67E-03
Benzo[b]fluoranthene						
Benz[c]acridine	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	6.56E-06	6.56E-06	1.31E-05	1.31E-05	9.12E-05	3.65E-04
Butyl benzyl phthalate						
Carbon monoxide	6.14E-02	6.14E-02	1.23E-01	1.23E-01	1.10E+00	4.42E+00
Chrysene						
Dibenzofurans	4.81E-03	4.81E-03	9.61E-03	9.61E-03	4.83E-02	1.93E-01
Dibenz[a,h]anthracene	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Diethylenetriamine	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Dioctylsebacate	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	2.00E-03	2.00E-03	4.00E-03	4.00E-03	5.60E-02	2.24E-01
Isophoronedi-isocyanate	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Methane	3.88E-01	3.88E-01	7.77E-01	7.77E-01	4.12E+00	1.65E+01
Naphthalene	9.64E-05	9.64E-05	1.93E-04	1.93E-04	1.42E-03	5.69E-03
Nitric oxide	3.55E-01	3.55E-01	7.10E-01	7.10E-01	6.94E+00	2.77E+01
Nitrogen dioxide	1.18E-01	1.18E-01	2.36E-01	2.36E-01	2.10E+00	8.38E+00
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	6.10E-05	6.10E-05	1.22E-04	1.22E-04	6.40E-04	2.56E-03
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	1.59E+00	1.59E+00	3.18E+00	3.18E+00	2.99E+01	1.19E+02
Phenanthrene						
Phenyldiisodecylphosphite	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Phenol	4.47E-04	4.47E-04	8.94E-04	8.94E-04	6.49E-03	2.59E-02
Picric acid						
Pyrene	1.40E-05	1.40E-05	2.80E-05	2.80E-05	1.68E-04	6.74E-04
Resorcinol	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04

Emissions: 7 - ABG
OB of Pyrotechnics

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Styrene						
Sulfur dioxide	7.34E-02	7.34E-02	1.47E-01	1.47E-01	7.06E-01	2.82E+00
TNMHC	3.79E-02	3.79E-02	7.58E-02	7.58E-02	6.28E-01	2.51E+00
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	1.00E-06	1.00E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Xylenes (isomers and mixture)						
HMX						
RDX						
2,4,6-Trinitrotoluene						
2,4-Dinitrotoluene	5.00E-04	5.00E-04	1.00E-03	1.00E-03	1.40E-02	5.60E-02
2,6-Dinitrotoluene	5.00E-04	5.00E-04	1.00E-03	1.00E-03	1.40E-02	5.60E-02
Nitroglycerin	4.00E-03	4.00E-03	8.00E-03	8.00E-03	1.12E-01	4.48E-01
Nitroguanidine	4.77E-03	4.77E-03	9.54E-03	9.54E-03	1.34E-01	5.34E-01
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate	6.00E-04	6.00E-04	1.20E-03	1.20E-03	1.68E-02	6.72E-02
Diethylphthalate						
Aluminum	3.56E-03	3.56E-03	7.12E-03	7.12E-03	9.97E-02	3.99E-01
Antimony						
Barium	2.17E-02	2.17E-02	4.34E-02	4.34E-02	6.08E-01	2.43E+00
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin	2.19E-02	2.19E-02	4.38E-02	4.38E-02	6.13E-01	2.45E+00
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 8 - ABG
OB of Black Powder Slurry Dissolution

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	1.74E-06	1.74E-06	3.48E-06	3.48E-06	3.50E-05	1.40E-04
1,3-Butadiene						
1,3,5-Trinitrobenzene	1.06E-06	1.06E-06	2.11E-06	2.11E-06	1.77E-05	7.06E-05
1,4-Dichlorobenzene						
1,6-Dinitropyrene	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
2-Nitronaphthalene	5.85E-06	5.85E-06	1.17E-05	1.17E-05	9.19E-05	3.67E-04
2-Nitrophenol	4.37E-05	4.37E-05	8.73E-05	8.73E-05	5.60E-04	2.24E-03
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	2.50E-03	2.50E-03	5.00E-03	5.00E-03	7.00E-02	2.80E-01
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	1.21E-03	1.21E-03	2.42E-03	2.42E-03	1.96E-02	7.84E-02
Benzo[a]pyrene	4.69E-05	4.69E-05	9.37E-05	9.37E-05	5.22E-04	2.09E-03
Benzo[b]fluoranthene						
Benz[c]acridine	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	8.19E-06	8.19E-06	1.64E-05	1.64E-05	1.14E-04	4.56E-04
Butyl benzyl phthalate						
Carbon monoxide	7.67E-02	7.67E-02	1.53E-01	1.53E-01	1.38E+00	5.52E+00
Chrysene						
Dibenzofurans	6.01E-03	6.01E-03	1.20E-02	1.20E-02	6.04E-02	2.42E-01
Dibenz[a,h]anthracene	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Diethylenetriamine	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Dioctylsebacate	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	2.50E-03	2.50E-03	5.00E-03	5.00E-03	7.00E-02	2.80E-01
Isophoronedi-isocyanate	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Methane	4.86E-01	4.86E-01	9.71E-01	9.71E-01	5.15E+00	2.06E+01
Naphthalene	1.21E-04	1.21E-04	2.41E-04	2.41E-04	1.78E-03	7.11E-03
Nitric oxide	4.44E-01	4.44E-01	8.87E-01	8.87E-01	8.67E+00	3.47E+01
Nitrogen dioxide	1.47E-01	1.47E-01	2.95E-01	2.95E-01	2.62E+00	1.05E+01
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	7.62E-05	7.62E-05	1.52E-04	1.52E-04	8.01E-04	3.20E-03
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	1.99E+00	1.99E+00	3.97E+00	3.97E+00	3.73E+01	1.49E+02
Phenanthrene						
Phenyldiisodecylphosphite	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Phenol	5.59E-04	5.59E-04	1.12E-03	1.12E-03	8.11E-03	3.24E-02
Picric acid						
Pyrene	1.75E-05	1.75E-05	3.50E-05	3.50E-05	2.11E-04	8.42E-04
Resorcinol	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04

Emissions: 8 - ABG
OB of Black Powder Slurry Dissolution

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Styrene						
Sulfur dioxide	9.18E-02	9.18E-02	1.84E-01	1.84E-01	8.82E-01	3.53E+00
TNMHC	4.73E-02	4.73E-02	9.47E-02	9.47E-02	7.85E-01	3.14E+00
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	1.25E-06	1.25E-06	2.50E-06	2.50E-06	3.50E-05	1.40E-04
Xylenes (isomers and mixture)						
HMX						
RDX						
2,4,6-Trinitrotoluene						
2,4-Dinitrotoluene	6.25E-04	6.25E-04	1.25E-03	1.25E-03	1.75E-02	7.00E-02
2,6-Dinitrotoluene	6.25E-04	6.25E-04	1.25E-03	1.25E-03	1.75E-02	7.00E-02
Nitroglycerin	5.00E-03	5.00E-03	1.00E-02	1.00E-02	1.40E-01	5.60E-01
Nitroguanidine	5.96E-03	5.96E-03	1.19E-02	1.19E-02	1.67E-01	6.68E-01
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate	7.50E-04	7.50E-04	1.50E-03	1.50E-03	2.10E-02	8.40E-02
Diethylphthalate						
Aluminum	4.45E-03	4.45E-03	8.90E-03	8.90E-03	1.25E-01	4.98E-01
Antimony						
Barium	2.71E-02	2.71E-02	5.43E-02	5.43E-02	7.60E-01	3.04E+00
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin	2.74E-02	2.74E-02	5.48E-02	5.48E-02	7.67E-01	3.07E+00
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 9 - ABG
OB of Contaminated Waste Materials

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	1.39E-06	2.79E-06	5.57E-06	5.57E-06	5.60E-05	2.24E-04
1,3-Butadiene						
1,3,5-Trinitrobenzene	8.44E-07	1.69E-06	3.38E-06	3.38E-06	2.82E-05	1.13E-04
1,4-Dichlorobenzene						
1,6-Dinitropyrene	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
2-Nitronaphthalene	4.68E-06	9.35E-06	1.87E-05	1.87E-05	1.47E-04	5.88E-04
2-Nitrophenol	3.49E-05	6.99E-05	1.40E-04	1.40E-04	8.96E-04	3.58E-03
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	2.00E-03	4.00E-03	8.00E-03	8.00E-03	1.12E-01	4.48E-01
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	9.68E-04	1.94E-03	3.87E-03	3.87E-03	3.14E-02	1.26E-01
Benzo[a]pyrene	3.75E-05	7.50E-05	1.50E-04	1.50E-04	8.35E-04	3.34E-03
Benzo[b]fluoranthene						
Benz[c]acridine	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	6.56E-06	1.31E-05	2.62E-05	2.62E-05	1.82E-04	7.30E-04
Butyl benzyl phthalate						
Carbon monoxide	6.14E-02	1.23E-01	2.46E-01	2.46E-01	2.21E+00	8.83E+00
Chrysene						
Dibenzofurans	4.81E-03	9.61E-03	1.92E-02	1.92E-02	9.67E-02	3.87E-01
Dibenz[a,h]anthracene	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Diethylenetriamine	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Dioctylsebacate	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	2.00E-03	4.00E-03	8.00E-03	8.00E-03	1.12E-01	4.48E-01
Isophoronedi-isocyanate	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Methane	3.88E-01	7.77E-01	1.55E+00	1.55E+00	8.25E+00	3.30E+01
Naphthalene	9.64E-05	1.93E-04	3.86E-04	3.86E-04	2.84E-03	1.14E-02
Nitric oxide	3.55E-01	7.10E-01	1.42E+00	1.42E+00	1.39E+01	5.55E+01
Nitrogen dioxide	1.18E-01	2.36E-01	4.72E-01	4.72E-01	4.19E+00	1.68E+01
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	6.10E-05	1.22E-04	2.44E-04	2.44E-04	1.28E-03	5.12E-03
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	1.59E+00	3.18E+00	6.36E+00	6.36E+00	5.97E+01	2.39E+02
Phenanthrene						
Phenyldiisodecylphosphite	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Phenol	4.47E-04	8.94E-04	1.79E-03	1.79E-03	1.30E-02	5.19E-02
Picric acid						
Pyrene	1.40E-05	2.80E-05	5.59E-05	5.59E-05	3.37E-04	1.35E-03
Resorcinol	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04

Emissions: 9 - ABG
OB of Contaminated Waste Materials

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Styrene						
Sulfur dioxide	7.34E-02	1.47E-01	2.94E-01	2.94E-01	1.41E+00	5.64E+00
TNMHC	3.79E-02	7.58E-02	1.52E-01	1.52E-01	1.26E+00	5.02E+00
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	1.00E-06	2.00E-06	4.00E-06	4.00E-06	5.60E-05	2.24E-04
Xylenes (isomers and mixture)						
HMX	1.84E-05	3.68E-05	7.36E-05	7.36E-05	1.03E-03	4.12E-03
RDX	6.90E-05	1.38E-04	2.76E-04	2.76E-04	3.86E-03	1.55E-02
2,4,6-Trinitrotoluene	4.97E-05	9.94E-05	1.99E-04	1.99E-04	2.78E-03	1.11E-02
2,4-Dinitrotoluene						
2,6-Dinitrotoluene						
Nitroglycerin						
Nitroguanidine	1.05E-05	2.10E-05	4.20E-05	4.20E-05	5.88E-04	2.35E-03
Tetryl	1.84E-05	3.68E-05	7.36E-05	7.36E-05	1.03E-03	4.12E-03
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate						
Diethylphthalate						
Aluminum	1.03E+00	2.06E+00	4.12E+00	4.12E+00	5.77E+01	2.31E+02
Antimony						
Barium	1.05E-02	2.10E-02	4.20E-02	4.20E-02	5.88E-01	2.35E+00
Chromium +						
Iron						
Lead	2.09E-02	4.18E-02	8.36E-02	8.36E-02	1.17E+00	4.68E+00
Nickel						
Silicon						
Tin	1.06E-02	2.12E-02	4.24E-02	4.24E-02	5.94E-01	2.37E+00
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 10 - ABG
OB of Contaminated Sludges at Dewatering Unit

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	1.39E-05	2.79E-05	2.79E-05	2.79E-05	2.80E-04	1.12E-03
1,3-Butadiene						
1,3,5-Trinitrobenzene	8.44E-06	1.69E-05	1.69E-05	1.69E-05	1.41E-04	5.65E-04
1,4-Dichlorobenzene						
1,6-Dinitropyrene	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
2-Nitronaphthalene	4.68E-05	9.35E-05	9.35E-05	9.35E-05	7.35E-04	2.94E-03
2-Nitrophenol	3.49E-04	6.99E-04	6.99E-04	6.99E-04	4.48E-03	1.79E-02
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	2.00E-02	4.00E-02	4.00E-02	4.00E-02	5.60E-01	2.24E+00
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	9.68E-03	1.94E-02	1.94E-02	1.94E-02	1.57E-01	6.28E-01
Benzo[a]pyrene	3.75E-04	7.50E-04	7.50E-04	7.50E-04	4.18E-03	1.67E-02
Benzo[b]fluoranthene						
Benz[c]acridine	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	6.56E-05	1.31E-04	1.31E-04	1.31E-04	9.12E-04	3.65E-03
Butyl benzyl phthalate						
Carbon monoxide	6.14E-01	1.23E+00	1.23E+00	1.23E+00	1.10E+01	4.42E+01
Chrysene						
Dibenzofurans	4.81E-02	9.61E-02	9.61E-02	9.61E-02	4.83E-01	1.93E+00
Dibenz[a,h]anthracene	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Diethylenetriamine	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Dioctylsebacate	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	2.00E-02	4.00E-02	4.00E-02	4.00E-02	5.60E-01	2.24E+00
Isophoronedi-isocyanate	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Methane	3.88E+00	7.77E+00	7.77E+00	7.77E+00	4.12E+01	1.65E+02
Naphthalene	9.64E-04	1.93E-03	1.93E-03	1.93E-03	1.42E-02	5.69E-02
Nitric oxide	3.55E+00	7.10E+00	7.10E+00	7.10E+00	6.94E+01	2.77E+02
Nitrogen dioxide	1.18E+00	2.36E+00	2.36E+00	2.36E+00	2.10E+01	8.38E+01
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	6.10E-04	1.22E-03	1.22E-03	1.22E-03	6.40E-03	2.56E-02
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	1.59E+01	3.18E+01	3.18E+01	3.18E+01	2.99E+02	1.19E+03
Phenanthrene						
Phenyldiisodecylphosphite	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Phenol	4.47E-03	8.94E-03	8.94E-03	8.94E-03	6.49E-02	2.59E-01
Picric acid						
Pyrene	1.40E-04	2.80E-04	2.80E-04	2.80E-04	1.68E-03	6.74E-03
Resorcinol	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03

Emissions: 10 - ABG
OB of Contaminated Sludges at Dewatering Unit

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Styrene						
Sulfur dioxide	7.34E-01	1.47E+00	1.47E+00	1.47E+00	7.06E+00	2.82E+01
TNMHC	3.79E-01	7.58E-01	7.58E-01	7.58E-01	6.28E+00	2.51E+01
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	1.00E-05	2.00E-05	2.00E-05	2.00E-05	2.80E-04	1.12E-03
Xylenes (isomers and mixture)						
HMX	2.92E-04	5.84E-04	5.84E-04	5.84E-04	8.18E-03	3.27E-02
RDX	3.33E-04	6.66E-04	6.66E-04	6.66E-04	9.32E-03	3.73E-02
2,4,6-Trinitrotoluene	7.45E-04	1.49E-03	1.49E-03	1.49E-03	2.09E-02	8.34E-02
2,4-Dinitrotoluene						
2,6-Dinitrotoluene						
Nitroglycerin						
Nitroguanidine						
Tetryl	2.92E-04	5.84E-04	5.84E-04	5.84E-04	8.18E-03	3.27E-02
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate						
Diethylphthalate						
Aluminum	3.18E+01	6.36E+01	6.36E+01	6.36E+01	8.90E+02	3.56E+03
Antimony						
Barium						
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin						
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 11 - ABG
OB of Red Phosphorus Sludge at Dewatering Unit

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	6.96E-07	2.09E-06	2.79E-06	2.79E-06	2.80E-05	1.12E-04
1,3-Butadiene						
1,3,5-Trinitrobenzene	4.22E-07	1.27E-06	1.69E-06	1.69E-06	1.41E-05	5.65E-05
1,4-Dichlorobenzene						
1,6-Dinitropyrene	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
2-Nitronaphthalene	2.34E-06	7.02E-06	9.35E-06	9.35E-06	7.35E-05	2.94E-04
2-Nitrophenol	1.75E-05	5.24E-05	6.99E-05	6.99E-05	4.48E-04	1.79E-03
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	1.00E-03	3.00E-03	4.00E-03	4.00E-03	5.60E-02	2.24E-01
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	4.84E-04	1.45E-03	1.94E-03	1.94E-03	1.57E-02	6.28E-02
Benzo[a]pyrene	1.87E-05	5.62E-05	7.50E-05	7.50E-05	4.18E-04	1.67E-03
Benzo[b]fluoranthene						
Benz[c]acridine	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	3.28E-06	9.83E-06	1.31E-05	1.31E-05	9.12E-05	3.65E-04
Butyl benzyl phthalate						
Carbon monoxide	3.07E-02	9.21E-02	1.23E-01	1.23E-01	1.10E+00	4.42E+00
Chrysene						
Dibenzofurans	2.40E-03	7.21E-03	9.61E-03	9.61E-03	4.83E-02	1.93E-01
Dibenz[a,h]anthracene	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Diethylenetriamine	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Dioctylsebacate	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	1.00E-03	3.00E-03	4.00E-03	4.00E-03	5.60E-02	2.24E-01
Isophoronedi-isocyanate	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Methane	1.94E-01	5.83E-01	7.77E-01	7.77E-01	4.12E+00	1.65E+01
Naphthalene	4.82E-05	1.45E-04	1.93E-04	1.93E-04	1.42E-03	5.69E-03
Nitric oxide	1.77E-01	5.32E-01	7.10E-01	7.10E-01	6.94E+00	2.77E+01
Nitrogen dioxide	5.90E-02	1.77E-01	2.36E-01	2.36E-01	2.10E+00	8.38E+00
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	3.05E-05	9.15E-05	1.22E-04	1.22E-04	6.40E-04	2.56E-03
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	7.95E-01	2.38E+00	3.18E+00	3.18E+00	2.99E+01	1.19E+02
Phenanthrene						
Phenyldiisodecylphosphite	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Phenol	2.24E-04	6.71E-04	8.94E-04	8.94E-04	6.49E-03	2.59E-02
Picric acid						
Pyrene	6.99E-06	2.10E-05	2.80E-05	2.80E-05	1.68E-04	6.74E-04
Resorcinol	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04

Emissions: 11 - ABG
OB of Red Phosphorus Sludge at Dewatering Unit

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Styrene						
Sulfur dioxide	3.67E-02	1.10E-01	1.47E-01	1.47E-01	7.06E-01	2.82E+00
TNMHC	1.89E-02	5.68E-02	7.58E-02	7.58E-02	6.28E-01	2.51E+00
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	5.00E-07	1.50E-06	2.00E-06	2.00E-06	2.80E-05	1.12E-04
Xylenes (isomers and mixture)						
HMX	1.46E-05	4.38E-05	5.84E-05	5.84E-05	8.18E-04	3.27E-03
RDX	1.67E-05	5.00E-05	6.66E-05	6.66E-05	9.32E-04	3.73E-03
2,4,6-Trinitrotoluene	3.73E-05	1.12E-04	1.49E-04	1.49E-04	2.09E-03	8.34E-03
2,4-Dinitrotoluene						
2,6-Dinitrotoluene						
Nitroglycerin						
Nitroguanidine						
Tetryl	1.46E-05	4.38E-05	5.84E-05	5.84E-05	8.18E-04	3.27E-03
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate						
Diethylphthalate						
Aluminum	1.59E+00	4.77E+00	6.36E+00	6.36E+00	8.90E+01	3.56E+02
Antimony						
Barium						
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin						
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 12 - ABG
OB of Pyrotechnics at Primer Pits

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	5.22E-07	1.57E-06	4.18E-06	4.18E-06	4.20E-05	1.68E-04
1,3-Butadiene						
1,3,5-Trinitrobenzene	3.17E-07	9.50E-07	2.53E-06	2.53E-06	2.12E-05	8.47E-05
1,4-Dichlorobenzene						
1,6-Dinitropyrene	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
2-Nitronaphthalene	1.75E-06	5.26E-06	1.40E-05	1.40E-05	1.10E-04	4.41E-04
2-Nitrophenol	1.31E-05	3.93E-05	1.05E-04	1.05E-04	6.72E-04	2.69E-03
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	7.50E-04	2.25E-03	6.00E-03	6.00E-03	8.40E-02	3.36E-01
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	3.63E-04	1.09E-03	2.90E-03	2.90E-03	2.35E-02	9.41E-02
Benzo[a]pyrene	1.41E-05	4.22E-05	1.12E-04	1.12E-04	6.26E-04	2.51E-03
Benzo[b]fluoranthene						
Benz[c]acridine	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	2.46E-06	7.37E-06	1.97E-05	1.97E-05	1.37E-04	5.47E-04
Butyl benzyl phthalate						
Carbon monoxide	2.30E-02	6.91E-02	1.84E-01	1.84E-01	1.66E+00	6.62E+00
Chrysene						
Dibenzofurans	1.80E-03	5.41E-03	1.44E-02	1.44E-02	7.25E-02	2.90E-01
Dibenz[a,h]anthracene	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Diethylenetriamine	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Dioctylsebacate	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	7.50E-04	2.25E-03	6.00E-03	6.00E-03	8.40E-02	3.36E-01
Isophoronedi-isocyanate	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Methane	1.46E-01	4.37E-01	1.17E+00	1.17E+00	6.19E+00	2.47E+01
Naphthalene	3.62E-05	1.08E-04	2.89E-04	2.89E-04	2.13E-03	8.53E-03
Nitric oxide	1.33E-01	3.99E-01	1.06E+00	1.06E+00	1.04E+01	4.16E+01
Nitrogen dioxide	4.42E-02	1.33E-01	3.54E-01	3.54E-01	3.14E+00	1.26E+01
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	2.29E-05	6.86E-05	1.83E-04	1.83E-04	9.61E-04	3.84E-03
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	5.96E-01	1.79E+00	4.77E+00	4.77E+00	4.48E+01	1.79E+02
Phenanthrene						
Phenyldiisodecylphosphite	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Phenol	1.68E-04	5.03E-04	1.34E-03	1.34E-03	9.73E-03	3.89E-02
Picric acid						
Pyrene	5.24E-06	1.57E-05	4.20E-05	4.20E-05	2.53E-04	1.01E-03
Resorcinol	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04

Emissions: 12 - ABG
OB of Pyrotechnics at Primer Pits

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Styrene						
Sulfur dioxide	2.75E-02	8.26E-02	2.20E-01	2.20E-01	1.06E+00	4.23E+00
TNMHC	1.42E-02	4.26E-02	1.14E-01	1.14E-01	9.42E-01	3.77E+00
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	3.75E-07	1.13E-06	3.00E-06	3.00E-06	4.20E-05	1.68E-04
Xylenes (isomers and mixture)						
HMX	9.90E-07	2.97E-06	7.92E-06	7.92E-06	1.11E-04	4.44E-04
RDX	5.51E-04	1.65E-03	4.41E-03	4.41E-03	6.17E-02	2.47E-01
2,4,6-Trinitrotoluene	5.36E-05	1.61E-04	4.29E-04	4.29E-04	6.01E-03	2.40E-02
2,4-Dinitrotoluene	1.99E-04	5.96E-04	1.59E-03	1.59E-03	2.23E-02	8.90E-02
2,6-Dinitrotoluene	1.99E-04	5.96E-04	1.59E-03	1.59E-03	2.23E-02	8.90E-02
Nitroglycerin	1.17E-04	3.50E-04	9.33E-04	9.33E-04	1.31E-02	5.22E-02
Nitroguanidine						
Tetryl	1.23E-05	3.70E-05	9.87E-05	9.87E-05	1.38E-03	5.53E-03
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate	4.31E-05	1.29E-04	3.45E-04	3.45E-04	4.83E-03	1.93E-02
Diethylphthalate	1.88E-07	5.63E-07	1.50E-06	1.50E-06	2.10E-05	8.40E-05
Aluminum	9.34E-01	2.80E+00	7.47E+00	7.47E+00	1.05E+02	4.18E+02
Antimony	7.16E-03	2.15E-02	5.73E-02	5.73E-02	8.02E-01	3.21E+00
Barium	1.82E-01	5.47E-01	1.46E+00	1.46E+00	2.04E+01	8.16E+01
Chromium +	4.16E-03	1.25E-02	3.33E-02	3.33E-02	4.66E-01	1.86E+00
Iron	9.34E-02	2.80E-01	7.47E-01	7.47E-01	1.05E+01	4.18E+01
Lead	1.00E+00	3.00E+00	8.01E+00	8.01E+00	1.12E+02	4.49E+02
Nickel	6.86E-02	2.06E-01	5.49E-01	5.49E-01	7.69E+00	3.07E+01
Silicon	3.55E-01	1.07E+00	2.84E+00	2.84E+00	3.98E+01	1.59E+02
Tin	5.78E-02	1.73E-01	4.62E-01	4.62E-01	6.47E+00	2.59E+01
Zirconium	9.53E-02	2.86E-01	7.62E-01	7.62E-01	1.07E+01	4.27E+01
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 13 - ABG
OB of Explosives and Pyrotechnics at Incendiary Cage

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	6.96E-05	2.09E-04	5.57E-04	6.96E-04	3.50E-03	1.40E-02
1,3-Butadiene						
1,3,5-Trinitrobenzene	4.22E-05	1.27E-04	3.38E-04	4.22E-04	1.77E-03	7.06E-03
1,4-Dichlorobenzene						
1,6-Dinitropyrene	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
2-Nitronaphthalene	2.34E-04	7.02E-04	1.87E-03	2.34E-03	9.19E-03	3.67E-02
2-Nitrophenol	1.75E-03	5.24E-03	1.40E-02	1.75E-02	5.60E-02	2.24E-01
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	1.00E-01	3.00E-01	8.00E-01	1.00E+00	7.00E+00	2.80E+01
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	4.84E-02	1.45E-01	3.87E-01	4.84E-01	1.96E+00	7.84E+00
Benzo[a]pyrene	1.87E-03	5.62E-03	1.50E-02	1.87E-02	5.22E-02	2.09E-01
Benzo[b]fluoranthene						
Benz[c]acridine	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	3.28E-04	9.83E-04	2.62E-03	3.28E-03	1.14E-02	4.56E-02
Butyl benzyl phthalate						
Carbon monoxide	3.07E+00	9.21E+00	2.46E+01	3.07E+01	1.38E+02	5.52E+02
Chrysene						
Dibenzofurans	2.40E-01	7.21E-01	1.92E+00	2.40E+00	6.04E+00	2.42E+01
Dibenz[a,h]anthracene	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Diethylenetriamine	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Dioctylsebacate	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	1.00E-01	3.00E-01	8.00E-01	1.00E+00	7.00E+00	2.80E+01
Isophoronedi-isocyanate	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Methane	1.94E+01	5.83E+01	1.55E+02	1.94E+02	5.15E+02	2.06E+03
Naphthalene	4.82E-03	1.45E-02	3.86E-02	4.82E-02	1.78E-01	7.11E-01
Nitric oxide	1.77E+01	5.32E+01	1.42E+02	1.77E+02	8.67E+02	3.47E+03
Nitrogen dioxide	5.90E+00	1.77E+01	4.72E+01	5.90E+01	2.62E+02	1.05E+03
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	3.05E-03	9.15E-03	2.44E-02	3.05E-02	8.01E-02	3.20E-01
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	7.95E+01	2.38E+02	6.36E+02	7.95E+02	3.73E+03	1.49E+04
Phenanthrene						
Phenyldiisodecylphosphite	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Phenol	2.24E-02	6.71E-02	1.79E-01	2.24E-01	8.11E-01	3.24E+00
Picric acid						
Pyrene	6.99E-04	2.10E-03	5.59E-03	6.99E-03	2.11E-02	8.42E-02
Resorcinol	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02

Emissions: 13 - ABG
OB of Explosives and Pyrotechnics at Incendiary Cage

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Styrene						
Sulfur dioxide	3.67E+00	1.10E+01	2.94E+01	3.67E+01	8.82E+01	3.53E+02
TNMHC	1.89E+00	5.68E+00	1.52E+01	1.89E+01	7.85E+01	3.14E+02
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	5.00E-05	1.50E-04	4.00E-04	5.00E-04	3.50E-03	1.40E-02
Xylenes (isomers and mixture)						
HMX						
RDX	1.45E-03	4.34E-03	1.16E-02	1.45E-02	1.01E-01	4.05E-01
2,4,6-Trinitrotoluene						
2,4-Dinitrotoluene	6.85E-05	2.06E-04	5.48E-04	6.85E-04	4.80E-03	1.92E-02
2,6-Dinitrotoluene	6.85E-05	2.06E-04	5.48E-04	6.85E-04	4.80E-03	1.92E-02
Nitroglycerin	5.10E-04	1.53E-03	4.08E-03	5.10E-03	3.57E-02	1.43E-01
Nitroguanidine	2.36E-04	7.08E-04	1.89E-03	2.36E-03	1.65E-02	6.61E-02
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate	2.50E-05	7.49E-05	2.00E-04	2.50E-04	1.75E-03	6.99E-03
Diethylphthalate						
Aluminum	8.35E+00	2.51E+01	6.68E+01	8.35E+01	5.85E+02	2.34E+03
Antimony						
Barium						
Chromium +						
Iron	3.89E-01	1.17E+00	3.11E+00	3.89E+00	2.72E+01	1.09E+02
Lead	7.00E-01	2.10E+00	5.60E+00	7.00E+00	4.90E+01	1.96E+02
Nickel						
Silicon						
Tin						
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 3a - ORR
OB of Yellow D

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	1.04E-05	3.13E-05	8.36E-05	8.36E-05	3.00E-04	1.20E-03
1,3-Butadiene						
1,3,5-Trinitrobenzene	6.33E-06	1.90E-05	5.07E-05	5.07E-05	1.51E-04	6.05E-04
1,4-Dichlorobenzene						
1,6-Dinitropyrene	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
2-Nitronaphthalene	3.51E-05	1.05E-04	2.81E-04	2.81E-04	7.87E-04	3.15E-03
2-Nitrophenol	2.62E-04	7.86E-04	2.10E-03	2.10E-03	4.80E-03	1.92E-02
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	1.50E-02	4.50E-02	1.20E-01	1.20E-01	6.00E-01	2.40E+00
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	7.26E-03	2.18E-02	5.81E-02	5.81E-02	1.68E-01	6.72E-01
Benzo[a]pyrene	2.81E-04	8.44E-04	2.25E-03	2.25E-03	4.47E-03	1.79E-02
Benzo[b]fluoranthene						
Benz[c]acridine	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	4.92E-05	1.47E-04	3.93E-04	3.93E-04	9.77E-04	3.91E-03
Butyl benzyl phthalate						
Carbon monoxide	4.60E-01	1.38E+00	3.68E+00	3.68E+00	1.18E+01	4.73E+01
Chrysene						
Dibenzofurans	3.60E-02	1.08E-01	2.88E-01	2.88E-01	5.18E-01	2.07E+00
Dibenz[a,h]anthracene	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Diethylenetriamine	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Dioctylsebacate	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	1.50E-02	4.50E-02	1.20E-01	1.20E-01	6.00E-01	2.40E+00
Isophoronedi-isocyanate	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Methane	2.91E+00	8.74E+00	2.33E+01	2.33E+01	4.42E+01	1.77E+02
Naphthalene	7.23E-04	2.17E-03	5.78E-03	5.78E-03	1.52E-02	6.09E-02
Nitric oxide	2.66E+00	7.99E+00	2.13E+01	2.13E+01	7.43E+01	2.97E+02
Nitrogen dioxide	8.84E-01	2.65E+00	7.08E+00	7.08E+00	2.25E+01	8.98E+01
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	4.57E-04	1.37E-03	3.66E-03	3.66E-03	6.86E-03	2.74E-02
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	1.19E+01	3.58E+01	9.53E+01	9.53E+01	3.20E+02	1.28E+03
Phenanthrene						
Phenyldiisodecylphosphite	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Phenol	3.35E-03	1.01E-02	2.68E-02	2.68E-02	6.95E-02	2.78E-01
Picric acid						
Pyrene	1.05E-04	3.15E-04	8.39E-04	8.39E-04	1.80E-03	7.22E-03
Resorcinol	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03

Emissions: 3a - ORR
OB of Yellow D

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Styrene						
Sulfur dioxide	5.51E-01	1.65E+00	4.40E+00	4.40E+00	7.56E+00	3.02E+01
TNMHC	2.84E-01	8.52E-01	2.27E+00	2.27E+00	6.73E+00	2.69E+01
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	7.50E-06	2.25E-05	6.00E-05	6.00E-05	3.00E-04	1.20E-03
Xylenes (isomers and mixture)						
HMX						
RDX	7.88E-04	2.36E-03	6.30E-03	6.30E-03	3.15E-02	1.26E-01
2,4,6-Trinitrotoluene	1.95E-04	5.85E-04	1.56E-03	1.56E-03	7.80E-03	3.12E-02
2,4-Dinitrotoluene						
2,6-Dinitrotoluene						
Nitroglycerin						
Nitroguanidine						
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate						
Diethylphthalate						
Aluminum						
Antimony						
Barium						
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin						
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 3b - ORR
OB of Projectile Bodies

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	3.13E-05	9.40E-05	1.25E-04	1.25E-04	4.50E-04	1.80E-03
1,3-Butadiene						
1,3,5-Trinitrobenzene	1.90E-05	5.70E-05	7.60E-05	7.60E-05	2.27E-04	9.08E-04
1,4-Dichlorobenzene						
1,6-Dinitropyrene	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
2-Methyl naphthalene						
2-Methylphenol						
2-Naphthylamine	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
2-Nitronaphthalene	1.05E-04	3.16E-04	4.21E-04	4.21E-04	1.18E-03	4.72E-03
2-Nitrophenol	7.86E-04	2.36E-03	3.14E-03	3.14E-03	7.20E-03	2.88E-02
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
4-Nitrophenol						
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Acenaphthylene						
Acetophenone						
alpha,alpha-Dimethylphenethylamine						
Ammonia	4.50E-02	1.35E-01	1.80E-01	1.80E-01	9.00E-01	3.60E+00
Anthracene						
Aromatics (VOs, including benzene)						
Benzene	2.18E-02	6.53E-02	8.71E-02	8.71E-02	2.52E-01	1.01E+00
Benzo[a]pyrene	8.44E-04	2.53E-03	3.37E-03	3.37E-03	6.71E-03	2.68E-02
Benzo[b]fluoranthene						
Benz[c]acridine	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Benzyl alcohol						
Benzo[k]fluoranthene						
Benz[a]anthracene	1.47E-04	4.42E-04	5.90E-04	5.90E-04	1.47E-03	5.86E-03
Butyl benzyl phthalate						
Carbon monoxide	1.38E+00	4.14E+00	5.53E+00	5.53E+00	1.77E+01	7.10E+01
Chrysene						
Dibenzofurans	1.08E-01	3.24E-01	4.33E-01	4.33E-01	7.77E-01	3.11E+00
Dibenz[a,h]anthracene	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Diethylenetriamine	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Dimethyl phthalate						
Di-n-octyl phthalate						
Di-n-propyladipate	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Dioctylsebacate	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Di(2-ethylhexyl)phthalate						
Ethyl benzene						
Fluoranthene						
Fluorene						
Hexane						
Hydrogen cyanide	4.50E-02	1.35E-01	1.80E-01	1.80E-01	9.00E-01	3.60E+00
Isophoronedi-isocyanate	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Methane	8.74E+00	2.62E+01	3.50E+01	3.50E+01	6.63E+01	2.65E+02
Naphthalene	2.17E-03	6.51E-03	8.68E-03	8.68E-03	2.28E-02	9.14E-02
Nitric oxide	7.99E+00	2.40E+01	3.19E+01	3.19E+01	1.11E+02	4.46E+02
Nitrogen dioxide	2.65E+00	7.96E+00	1.06E+01	1.06E+01	3.37E+01	1.35E+02
N-Nitrosodiethylamine						
N-Nitrosodiphenylamine	1.37E-03	4.12E-03	5.49E-03	5.49E-03	1.03E-02	4.12E-02
Olefins (VOs)						
Parafins (VOs)						
Particulates (PM-10)	3.58E+01	1.07E+02	1.43E+02	1.43E+02	4.80E+02	1.92E+03
Phenanthrene						
Phenyldiisodecylphosphite	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Phenol	1.01E-02	3.02E-02	4.02E-02	4.02E-02	1.04E-01	4.17E-01
Picric acid						
Pyrene	3.15E-04	9.44E-04	1.26E-03	1.26E-03	2.71E-03	1.08E-02
Resorcinol	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03

Emissions: 3b - ORR
OB of Projectile Bodies

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Styrene						
Sulfur dioxide	1.65E+00	4.96E+00	6.61E+00	6.61E+00	1.13E+01	4.54E+01
TNMHC	8.52E-01	2.56E+00	3.41E+00	3.41E+00	1.01E+01	4.04E+01
TO-12 (TOT.ORGANICS,C2-C15)						
Toluene						
Triacetin	2.25E-05	6.75E-05	9.00E-05	9.00E-05	4.50E-04	1.80E-03
Xylenes (isomers and mixture)						
HMX						
RDX	2.36E-03	7.09E-03	9.45E-03	9.45E-03	4.73E-02	1.89E-01
2,4,6-Trinitrotoluene	5.85E-04	1.76E-03	2.34E-03	2.34E-03	1.17E-02	4.68E-02
2,4-Dinitrotoluene						
2,6-Dinitrotoluene						
Nitroglycerin						
Nitroguanidine						
Tetryl						
Diphenylamine						
2-Nitrodiphenylamine						
Dibutylphthalate						
Diethylphthalate						
Aluminum						
Antimony						
Barium						
Chromium +						
Iron						
Lead						
Nickel						
Silicon						
Tin						
Zirconium						
Aluminum						
Copper						
Manganese						
Zinc (Casing)						
Fiberglass						
Plastic						
Iron						
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

Emissions: 3 - DG
OD of Explosives

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
1-Nitropyrene	2.25E-03	2.25E-03	2.25E-03	2.25E-03	3.65E-02	1.46E-01
1,3-Butadiene	7.94E-01	7.94E-01	7.94E-01	7.94E-01	9.02E+00	3.61E+01
1,3,5-Trinitrobenzene	2.17E-02	2.17E-02	2.17E-02	2.17E-02	2.51E-01	1.00E+00
1,4-Dichlorobenzene	1.53E-02	1.53E-02	1.53E-02	1.53E-02	3.58E-01	1.43E+00
1,6-Dinitropyrene						
2-Methyl naphthalene	9.36E-02	9.36E-02	9.36E-02	9.36E-02	1.14E+00	4.57E+00
2-Methylphenol	4.39E-02	4.39E-02	4.39E-02	4.39E-02	8.47E-01	3.39E+00
2-Naphthylamine						
2-Nitronaphthalene	5.49E-03	5.49E-03	5.49E-03	5.49E-03	8.08E-02	3.23E-01
2-Nitrophenol						
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)						
4-Nitrophenol	5.01E-02	5.01E-02	5.01E-02	5.01E-02	2.41E-01	9.63E-01
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide						
Acenaphthylene	2.35E-02	2.35E-02	2.35E-02	2.35E-02	3.52E-01	1.41E+00
Acetophenone	9.69E-03	9.69E-03	9.69E-03	9.69E-03	2.12E-01	8.47E-01
alpha,alpha-Dimethylphenethylamine	5.45E-02	5.45E-02	5.45E-02	5.45E-02	1.36E+00	5.45E+00
Ammonia	1.61E+01	1.61E+01	1.61E+01	1.61E+01	4.02E+02	1.61E+03
Anthracene	1.13E-02	1.13E-02	1.13E-02	1.13E-02	2.15E-01	8.58E-01
Aromatics (VOs, including benzene)	1.01E+02	1.01E+02	1.01E+02	1.01E+02	9.91E+02	3.96E+03
Benzene	1.32E+01	1.32E+01	1.32E+01	1.32E+01	1.79E+02	7.15E+02
Benzo[a]pyrene	7.62E-03	7.62E-03	7.62E-03	7.62E-03	1.13E-01	4.51E-01
Benzo[b]fluoranthene	1.92E-02	1.92E-02	1.92E-02	1.92E-02	1.65E-01	6.60E-01
Benz[c]acridine						
Benzyl alcohol	6.85E-03	6.85E-03	6.85E-03	6.85E-03	1.32E-01	5.26E-01
Benzo[k]fluoranthene	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.32E-01	5.28E-01
Benz[a]anthracene	4.15E-03	4.15E-03	4.15E-03	4.15E-03	6.48E-02	2.59E-01
Butyl benzyl phthalate	4.60E-02	4.60E-02	4.60E-02	4.60E-02	7.07E-01	2.83E+00
Carbon monoxide	2.83E+03	2.83E+03	2.83E+03	2.83E+03	5.34E+04	2.14E+05
Chrysene	1.27E-02	1.27E-02	1.27E-02	1.27E-02	3.16E-01	1.27E+00
Dibenzofurans	2.86E-02	2.86E-02	2.86E-02	2.86E-02	3.37E-01	1.35E+00
Dibenz[a,h]anthracene	2.37E-02	2.37E-02	2.37E-02	2.37E-02	5.91E-01	2.37E+00
Diethylenetriamine						
Dimethyl phthalate	1.88E-02	1.88E-02	1.88E-02	1.88E-02	3.29E-01	1.32E+00
Di-n-octyl phthalate	1.84E-01	1.84E-01	1.84E-01	1.84E-01	2.29E+00	9.15E+00
Di-n-propyladipate						
Dioctylsebacate						
Di(2-ethylhexyl)phthalate	1.45E-01	1.45E-01	1.45E-01	1.45E-01	2.64E+00	1.06E+01
Ethyl benzene	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.41E+01	5.65E+01
Fluoranthene	4.10E-02	4.10E-02	4.10E-02	4.10E-02	5.75E-01	2.30E+00
Fluorene	1.63E-02	1.63E-02	1.63E-02	1.63E-02	3.38E-01	1.35E+00
Hexane	1.03E+00	1.03E+00	1.03E+00	1.03E+00	1.11E+01	4.42E+01
Hydrogen cyanide	1.91E+02	1.91E+02	1.91E+02	1.91E+02	3.12E+03	1.25E+04
Isophoronedi-isocyanate						
Methane	1.70E+02	1.70E+02	1.70E+02	1.70E+02	2.71E+03	1.08E+04
Naphthalene	3.83E-01	3.83E-01	3.83E-01	3.83E-01	4.14E+00	1.66E+01
Nitric oxide	2.76E+02	2.76E+02	2.76E+02	2.76E+02	3.36E+03	1.34E+04
Nitrogen dioxide	1.12E+02	1.12E+02	1.12E+02	1.12E+02	1.84E+03	7.35E+03
N-Nitrosodiethylamine	6.60E-03	6.60E-03	6.60E-03	6.60E-03	1.65E-01	6.60E-01
N-Nitrosodiphenylamine	5.80E-02	5.80E-02	5.80E-02	5.80E-02	5.71E-01	2.28E+00
Olefins (VOs)	6.66E+01	6.66E+01	6.66E+01	6.66E+01	9.11E+02	3.64E+03
Parafins (VOs)	5.69E+00	5.69E+00	5.69E+00	5.69E+00	1.17E+02	4.67E+02
Particulates (PM-10)	2.20E+04	2.20E+04	2.20E+04	2.20E+04	3.30E+05	1.32E+06
Phenanthrene	5.91E-02	5.91E-02	5.91E-02	5.91E-02	7.41E-01	2.96E+00
Phenyldiisodecylphosphite						
Phenol	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.51E+00	1.00E+01
Picric acid	2.75E-03	2.75E-03	2.75E-03	2.75E-03	6.88E-02	2.75E-01
Pyrene	3.30E-02	3.30E-02	3.30E-02	3.30E-02	4.52E-01	1.81E+00
Resorcinol						

Emissions: 3 - DG
OD of Explosives

	Emissions (lb)					
Contaminant	1-Hour	3-Hour	8-Hour	24-Hour	Quarterly	Annual
Salicylic Acid						
Styrene	5.69E+01	5.69E+01	5.69E+01	5.69E+01	5.89E+02	2.35E+03
Sulfur dioxide	1.23E+01	1.23E+01	1.23E+01	1.23E+01	3.07E+02	1.23E+03
TNMHC	1.21E+02	1.21E+02	1.21E+02	1.21E+02	2.18E+03	8.71E+03
TO-12 (TOT.ORGANICS,C2-C15)	2.74E+02	2.74E+02	2.74E+02	2.74E+02	3.38E+03	1.35E+04
Toluene	8.55E+00	8.55E+00	8.55E+00	8.55E+00	9.17E+01	3.67E+02
Triacetin						
Xylenes (isomers and mixture)	7.36E+00	7.36E+00	7.36E+00	7.36E+00	7.46E+01	2.98E+02
HMX	7.70E+00	7.70E+00	7.70E+00	7.70E+00	1.93E+02	7.70E+02
RDX	1.32E+01	1.32E+01	1.32E+01	1.32E+01	3.30E+02	1.32E+03
2,4,6-Trinitrotoluene	9.46E-01	9.46E-01	9.46E-01	9.46E-01	2.37E+01	9.46E+01
2,4-Dinitrotoluene	2.86E-01	2.86E-01	2.86E-01	2.86E-01	7.15E+00	2.86E+01
2,6-Dinitrotoluene	2.26E-01	2.26E-01	2.26E-01	2.26E-01	5.64E+00	2.26E+01
Nitroglycerin	1.04E-01	1.04E-01	1.04E-01	1.04E-01	2.60E+00	1.04E+01
Nitroguanidine	1.01E-01	1.01E-01	1.01E-01	1.01E-01	2.53E+00	1.01E+01
Tetryl	2.07E-02	2.07E-02	2.07E-02	2.07E-02	5.18E-01	2.07E+00
Diphenylamine	1.27E-02	1.27E-02	1.27E-02	1.27E-02	3.16E-01	1.27E+00
2-Nitrodiphenylamine	1.60E-02	1.60E-02	1.60E-02	1.60E-02	3.99E-01	1.60E+00
Dibutylphthalate	2.09E+00	2.09E+00	2.09E+00	2.09E+00	5.23E+01	2.09E+02
Diethylphthalate	3.03E-02	3.03E-02	3.03E-02	3.03E-02	7.56E-01	3.03E+00
Aluminum	6.22E+02	6.22E+02	6.22E+02	6.22E+02	1.55E+04	6.22E+04
Antimony	1.97E+00	1.97E+00	1.97E+00	1.97E+00	4.92E+01	1.97E+02
Barium	8.03E+01	8.03E+01	8.03E+01	8.03E+01	2.01E+03	8.03E+03
Chromium +	1.63E+01	1.63E+01	1.63E+01	1.63E+01	4.08E+02	1.63E+03
Iron	3.23E-01	3.23E-01	3.23E-01	3.23E-01	8.07E+00	3.23E+01
Lead	1.51E+02	1.51E+02	1.51E+02	1.51E+02	3.77E+03	1.51E+04
Nickel	3.11E-01	3.11E-01	3.11E-01	3.11E-01	7.78E+00	3.11E+01
Silicon						
Tin	1.64E+01	1.64E+01	1.64E+01	1.64E+01	4.10E+02	1.64E+03
Zirconium	2.07E-01	2.07E-01	2.07E-01	2.07E-01	5.18E+00	2.07E+01
Aluminum	2.12E+03	2.12E+03	2.12E+03	2.12E+03	5.31E+04	2.12E+05
Copper	3.73E+03	3.73E+03	3.73E+03	3.73E+03	9.32E+04	3.73E+05
Manganese	6.31E+02	6.31E+02	6.31E+02	6.31E+02	1.58E+04	6.31E+04
Zinc (Casing)	4.88E+02	4.88E+02	4.88E+02	4.88E+02	1.22E+04	4.88E+04
Fiberglass	1.06E+03	1.06E+03	1.06E+03	1.06E+03	2.65E+04	1.06E+05
Plastic	1.06E+03	1.06E+03	1.06E+03	1.06E+03	2.65E+04	1.06E+05
Iron	9.70E+04	9.70E+04	9.70E+04	9.70E+04	2.42E+06	9.70E+06
+ Chromium emissions consist of 90 % trivalent						
chromium and 10% hexavalent chromium.						

APPENDIX D-7

1-HOUR DISPERSION FACTORS
OB/OD TREATMENT OPERATIONS

Dispersion Factors: ORR

Receptor	Distance (m)	Elevation (m)	Max DF (ug/m3)	Wind Speed (m/s)	Stability
Radial	500	204.2	1.48607	6.7	C
Radial	1000	225.6	0.76889	5.5	D
Radial	1500	222.5	0.48571	5.5	D
Radial	2000	231.6	0.36648	4.5	D
Radial	2500	246.9	0.28282	4.5	D
Radial	3000	249.9	0.25616	3.5	D
Radial	3500	243.8	0.24522	3.5	D
Radial	4000	249.9	0.23184	3.5	D
Radial	4500	249.9	0.21775	3.5	D
Radial	5000	257.6	0.20385	3.5	D
Cafeteria	3792	231.6	0.26838	4.5	D
N. Bald Eagle	5712	179.8	0.18525	3.5	D
S. Bald Eagle	8688	155.4	0.12641	3.5	D
DG Retreat	840	207.3	0.83787	6.7	D
ABG Retreat	6552	182.9	0.16566	3.5	D
Padanaram	9360	167.6	0.11778	2.5	D
Indian Springs	6600	161.5	0.16462	3.5	D
Silverville	14160	158.5	0.08288	2.5	D
Burns City	5400	213.4	0.19583	4.5	D
Boundary - N	9336	228.6	0.11800	2.5	D
Boundary - NNE	10440	249.9	0.10844	2.5	D
Boundary - NE	11160	222.5	0.10269	2.5	D
Boundary - ENE	13296	216.4	0.08796	2.5	D
Boundary - E	7056	198.1	0.15516	3.5	D
Boundary - ESE	5160	182.9	0.20478	4.5	D
Boundary - SE	5040	192.0	0.20948	4.5	D
Boundary - SSE	7920	167.6	0.13920	3.5	D
Boundary - S	9432	152.4	0.11391	3.5	D
Boundary - SSW	10152	146.3	0.10269	2.5	D
Boundary - SW	8736	152.4	0.12312	3.5	D
Boundary - WSW	7344	192.0	0.14956	3.5	D
Boundary - W	4848	198.1	0.21733	4.5	D
Boundary - WNW	5496	167.6	0.19241	4.5	D
Boundary - NW	8904	198.1	0.12377	3.5	D
Boundary - NNW	9168	198.1	0.12007	3.5	D
Boundary - 17th	8136	179.8	0.13558	3.5	D

Dispersion Factors: ABG

Receptor	Distance (m)	Elevation (m)	Max DF (ug/m3)	Wind Speed (m/s)	Stability
Radial	500	243.8	1.65446	6.7	D
Radial	1000	253.0	0.76307	5.5	D
Radial	1500	253.0	0.48668	5.5	D
Radial	2000	253.0	0.44063	5.5	D
Radial	2500	249.9	0.38570	5.5	D
Radial	3000	246.9	0.33498	5.5	D
Radial	3500	246.9	0.29174	5.5	D
Radial	4000	259.1	0.25721	4.5	D
Radial	4500	256.0	0.23263	4.5	D
Radial	5000	262.1	0.21108	4.5	D
Cafeteria	6168	231.6	0.17428	3.5	D
N. Bald Eagle	7800	179.8	0.13668	3.5	D
S. Bald Eagle	12960	155.4	0.07481	2.5	D
DG Retreat	7200	207.3	0.15232	3.5	D
ABG Retreat	120	182.9	0.04561	6.7	A
Padanaram	3312	167.6	0.24013	6.7	D
Indian Springs	5520	161.5	0.15181	4.5	D
Silverville	7680	158.5	0.11471	3.5	D
Burns City	11880	213.4	0.09735	2.5	D
Boundary - N	10272	228.6	0.10984	2.5	D
Boundary - NNE	8280	249.9	0.13324	3.5	D
Boundary - NE	6648	222.5	0.16358	3.5	D
Boundary - ENE	6960	216.4	0.15709	3.5	D
Boundary - E	2016	198.1	0.47704	6.7	D
Boundary - ESE	4272	182.9	0.24018	4.5	D
Boundary - SE	6312	192.0	0.17098	3.5	D
Boundary - SSE	9672	167.6	0.10199	3.5	D
Boundary - S	12912	152.4	0.07342	2.5	D
Boundary - SSW	15960	146.3	0.06019	2.5	D
Boundary - SW	14784	152.4	0.06638	2.5	D
Boundary - WSW	13752	192.0	0.08522	2.5	D
Boundary - W	11256	198.1	0.10195	2.5	D
Boundary - WNW	11496	167.6	0.08916	2.5	D
Boundary - NW	13680	198.1	0.08564	2.5	D
Boundary - NNW	12480	198.1	0.09320	2.5	D
Boundary - 17th	1608	179.8	0.49582	6.7	D

Dispersion Factors: Puff Releases

	Source	
Receptor	ABG	DG
Cafeteria	4.83E-02	2.13E-01
N. Bald Eagle	3.44E-02	1.13E-01
S. Bald Eagle	2.13E-02	6.93E-02
DG Retreat		3.29E-01
ABG Retreat	1.48E-09	
Padanaram	3.05E-02	5.16E-02
Indian Springs	3.84E-02	9.25E-02
Silverville	3.44E-02	2.70E-02
Burns City	2.59E-02	1.58E-01
Boundary - ENE	4.16E-02	3.07E-02
Boundary - E	1.97E-02	9.39E-02
Boundary - ESE	1.33E-01	1.64E-01
Boundary - SE	4.05E-02	1.86E-01
Boundary - 17th	1.56E-01	7.44E-02

Dispersion Factors: Fuel Assisted ABG

	Dispersion Factor
Receptor	(ug/m3)/lb
Cafeteria	9.24E-02
N. Bald Eagle	6.10E-02
S. Bald Eagle	2.88E-02
DG Retreat	
ABG Retreat	2.55E-04
Padanaram	1.29E-01
Indian Springs	8.99E-02
Silverville	6.10E-02
Burns City	3.60E-02
Boundary - ENE	7.79E-02
Boundary - E	1.49E-01
Boundary - ESE	2.07E-01
Boundary - SE	8.14E-02
Boundary - 17th	5.86E-01

APPENDIX D-8

INDIVIDUAL OB/OD TREATMENT IMPACT CONCENTRATIONS ($\mu g/m^3$) TO BOUNDARY AND DISCRETE RECEPTORS

Example Case Shown: 3a-ABG (OB of Propellants)

BOUNDARY RECEPTORS

3a-ABG Boundary: 1 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
1-Nitropyrene	8.69E-06	4.11E-06	2.78E-05	8.46E-06	3.26E-05
1,3-Butadiene					
1,3,5-Trinitrobenzene	5.27E-06	2.49E-06	1.68E-05	5.13E-06	1.98E-05
1,4-Dichlorobenzene					
1,6-Dinitropyrene	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
2-Methyl naphthalene					
2-Methylphenol					
2-Naphthylamine	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
2-Nitronaphthalene	2.92E-05	1.38E-05	9.32E-05	2.84E-05	1.09E-04
2-Nitrophenol	2.18E-04	1.03E-04	6.96E-04	2.12E-04	8.17E-04
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
4-Nitrophenol					
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Acenaphthylene					
Acetophenone					
alpha,alpha-Dimethylphenethylamine					
Ammonia	1.25E-02	5.90E-03	3.99E-02	1.21E-02	4.68E-02
Anthracene					
Aromatics (VOs, including benzene)					
Benzene	6.04E-03	2.86E-03	1.93E-02	5.88E-03	2.27E-02
Benzo[a]pyrene	2.34E-04	1.11E-04	7.48E-04	2.28E-04	8.77E-04
Benzo[b]fluoranthene					
Benz[c]acridine	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Benzyl alcohol					
Benzo[k]fluoranthene					
Benz[a]anthracene	4.09E-05	1.93E-05	1.31E-04	3.98E-05	1.53E-04
Butyl benzyl phthalate					
Carbon monoxide	3.83E-01	1.81E-01	1.22E+00	3.73E-01	1.44E+00
Chrysene					
Dibenzofurans	3.00E-02	1.42E-02	9.58E-02	2.92E-02	1.12E-01
Dibenz[a,h]anthracene	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Diethylenetriamine	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Dimethyl phthalate					

3a-ABG Boundary: 1 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
Di-n-octyl phthalate					
Di-n-propyladipate	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Dioctylsebacate	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Di(2-ethylhexyl)phthalate					
Ethyl benzene					
Fluoranthene					
Fluorene					
Hexane					
Hydrogen cyanide	1.25E-02	5.90E-03	3.99E-02	1.21E-02	4.68E-02
Isophoronedi-isocyanate	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Methane	2.42E+00	1.15E+00	7.74E+00	2.36E+00	9.09E+00
Naphthalene	6.02E-04	2.84E-04	1.92E-03	5.85E-04	2.26E-03
Nitric oxide	2.22E+00	1.05E+00	7.07E+00	2.15E+00	8.30E+00
Nitrogen dioxide	7.36E-01	3.48E-01	2.35E+00	7.16E-01	2.76E+00
N-Nitrosodiethylamine					
N-Nitrosodiphenylamine	3.81E-04	1.80E-04	1.22E-03	3.70E-04	1.43E-03
Olefins (VOs)					
Parafins (VOs)					
Particulates (PM-10)	9.92E+00	4.69E+00	3.17E+01	9.65E+00	3.72E+01
Phenanthrene					
Phenyldiisodecylphosphite	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Phenol	2.79E-03	1.32E-03	8.91E-03	2.71E-03	1.05E-02
Picric acid					
Pyrene	8.73E-05	4.13E-05	2.79E-04	8.49E-05	3.27E-04
Resorcinol	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Salicylic Acid	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Styrene					
Sulfur dioxide	4.58E-01	2.17E-01	1.46E+00	4.46E-01	1.72E+00
TNMHC	2.36E-01	1.12E-01	7.55E-01	2.30E-01	8.86E-01
TO-12 (TOT.ORGANICS,C2-C15)					
Toluene					
Triacetin	6.24E-06	2.95E-06	1.99E-05	6.07E-06	2.34E-05
Xylenes (isomers and mixture)					

3a-ABG Boundary: 1 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
HMX *					
RDX *					
2,4,6-Trinitrotoluene *					
2,4-Dinitrotoluene *	3.12E-03	1.48E-03	9.97E-03	3.04E-03	1.17E-02
2,6-Dinitrotoluene *	3.12E-03	1.48E-03	9.97E-03	3.04E-03	1.17E-02
Nitroglycerin *	2.50E-02	1.18E-02	7.97E-02	2.43E-02	9.36E-02
Nitroguanidine *	2.98E-02	1.41E-02	9.51E-02	2.90E-02	1.12E-01
Tetryl *					
Diphenylamine *					
2-Nitrodiphenylamine *					
Dibutylphthalate *	3.74E-03	1.77E-03	1.20E-02	3.64E-03	1.40E-02
Diethylphthalate *					
Aluminum **	2.22E-02	1.05E-02	7.10E-02	2.16E-02	8.33E-02
Antimony **					
Barium **	1.35E-01	6.40E-02	4.33E-01	1.32E-01	5.08E-01
Chromium **					
Iron **					
Lead **					
Nickel **					
Silicon **					
Tin **	1.37E-01	6.46E-02	4.37E-01	1.33E-01	5.12E-01
Zirconium **					
Aluminum ***					
Copper ***					
Manganese ***					
Zinc (Casing) ***					
Fiberglass ***					
Plastic ***					
Iron ***					

3a-ABG Boundary: 3 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
1-Nitropyrene	5.22E-06	2.47E-06	1.67E-05	5.07E-06	1.96E-05
1,3-Butadiene					
1,3,5-Trinitrobenzene	3.16E-06	1.49E-06	1.01E-05	3.08E-06	1.19E-05
1,4-Dichlorobenzene					
1,6-Dinitropyrene	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
2-Methyl naphthalene					
2-Methylphenol					
2-Naphthylamine	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
2-Nitronaphthalene	1.75E-05	8.28E-06	5.59E-05	1.70E-05	6.57E-05
2-Nitrophenol	1.31E-04	6.18E-05	4.18E-04	1.27E-04	4.90E-04
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
4-Nitrophenol					
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Acenaphthylene					
Acetophenone					
alpha,alpha-Dimethylphenethylamine					
Ammonia	7.49E-03	3.54E-03	2.39E-02	7.29E-03	2.81E-02
Anthracene					
Aromatics (VOs, including benzene)					
Benzene	3.62E-03	1.71E-03	1.16E-02	3.53E-03	1.36E-02
Benzo[a]pyrene	1.40E-04	6.64E-05	4.49E-04	1.37E-04	5.26E-04
Benzo[b]fluoranthene					
Benz[c]acridine	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Benzyl alcohol					
Benzo[k]fluoranthene					
Benz[a]anthracene	2.45E-05	1.16E-05	7.84E-05	2.39E-05	9.20E-05
Butyl benzyl phthalate					
Carbon monoxide	2.30E-01	1.09E-01	7.34E-01	2.24E-01	8.62E-01
Chrysene					
Dibenzofurans	1.80E-02	8.51E-03	5.75E-02	1.75E-02	6.75E-02
Dibenz[a,h]anthracene	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Diethylenetriamine	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Dimethyl phthalate					

3a-ABG Boundary: 3 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
Di-n-octyl phthalate					
Di-n-propyladipate	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Dioctylsebacate	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Di(2-ethylhexyl)phthalate					
Ethyl benzene					
Fluoranthene					
Fluorene					
Hexane					
Hydrogen cyanide	7.49E-03	3.54E-03	2.39E-02	7.29E-03	2.81E-02
Isophoronedi-isocyanate	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Methane	1.45E+00	6.88E-01	4.65E+00	1.42E+00	5.45E+00
Naphthalene	3.61E-04	1.71E-04	1.15E-03	3.51E-04	1.35E-03
Nitric oxide	1.33E+00	6.28E-01	4.24E+00	1.29E+00	4.98E+00
Nitrogen dioxide	4.42E-01	2.09E-01	1.41E+00	4.30E-01	1.66E+00
N-Nitrosodiethylamine					
N-Nitrosodiphenylamine	2.28E-04	1.08E-04	7.30E-04	2.22E-04	8.56E-04
Olefins (VOs)					
Parafins (VOs)					
Particulates (PM-10)	5.95E+00	2.81E+00	1.90E+01	5.79E+00	2.23E+01
Phenanthrene					
Phenyldiisodecylphosphite	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Phenol	1.67E-03	7.91E-04	5.35E-03	1.63E-03	6.28E-03
Picric acid					
Pyrene	5.24E-05	2.48E-05	1.67E-04	5.09E-05	1.96E-04
Resorcinol	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Salicylic Acid	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Styrene					
Sulfur dioxide	2.75E-01	1.30E-01	8.78E-01	2.67E-01	1.03E+00
TNMHC	1.42E-01	6.71E-02	4.53E-01	1.38E-01	5.32E-01
TO-12 (TOT.ORGANICS,C2-C15)					
Toluene					
Triacetin	3.74E-06	1.77E-06	1.20E-05	3.64E-06	1.40E-05
Xylenes (isomers and mixture)					

3a-ABG Boundary: 3 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
HMX *					
RDX *					
2,4,6-Trinitrotoluene *					
2,4-Dinitrotoluene *	1.87E-03	8.85E-04	5.98E-03	1.82E-03	7.02E-03
2,6-Dinitrotoluene *	1.87E-03	8.85E-04	5.98E-03	1.82E-03	7.02E-03
Nitroglycerin *	1.50E-02	7.08E-03	4.78E-02	1.46E-02	5.62E-02
Nitroguanidine *	1.79E-02	8.44E-03	5.71E-02	1.74E-02	6.70E-02
Tetryl *					
Diphenylamine *					
2-Nitrodiphenylamine *					
Dibutylphthalate *	2.25E-03	1.06E-03	7.18E-03	2.19E-03	8.42E-03
Diethylphthalate *					
Aluminum **	1.33E-02	6.30E-03	4.26E-02	1.30E-02	5.00E-02
Antimony **					
Barium **	8.13E-02	3.84E-02	2.60E-01	7.91E-02	3.05E-01
Chromium **					
Iron **					
Lead **					
Nickel **					
Silicon **					
Tin **	8.20E-02	3.88E-02	2.62E-01	7.98E-02	3.07E-01
Zirconium **					
Aluminum ***					
Copper ***					
Manganese ***					
Zinc (Casing) ***					
Fiberglass ***					
Plastic ***					
Iron ***					

3a-ABG Boundary: 8 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
1-Nitropyrene	2.28E-06	1.08E-06	7.29E-06	2.22E-06	8.55E-06
1,3-Butadiene					
1,3,5-Trinitrobenzene	1.38E-06	6.54E-07	4.42E-06	1.35E-06	5.19E-06
1,4-Dichlorobenzene					
1,6-Dinitropyrene	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
2-Methyl naphthalene					
2-Methylphenol					
2-Naphthylamine	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
2-Nitronaphthalene	7.66E-06	3.62E-06	2.45E-05	7.45E-06	2.87E-05
2-Nitrophenol	5.72E-05	2.71E-05	1.83E-04	5.57E-05	2.15E-04
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
4-Nitrophenol					
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Acenaphthylene					
Acetophenone					
alpha,alpha-Dimethylphenethylamine					
Ammonia	3.28E-03	1.55E-03	1.05E-02	3.19E-03	1.23E-02
Anthracene					
Aromatics (VOs, including benzene)					
Benzene	1.59E-03	7.50E-04	5.07E-03	1.54E-03	5.95E-03
Benzo[a]pyrene	6.14E-05	2.90E-05	1.96E-04	5.98E-05	2.30E-04
Benzo[b]fluoranthene					
Benz[c]acridine	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Benzyl alcohol					
Benzo[k]fluoranthene					
Benz[a]anthracene	1.07E-05	5.08E-06	3.43E-05	1.04E-05	4.03E-05
Butyl benzyl phthalate					
Carbon monoxide	1.01E-01	4.76E-02	3.21E-01	9.79E-02	3.77E-01
Chrysene					
Dibenzofurans	7.88E-03	3.72E-03	2.52E-02	7.66E-03	2.95E-02
Dibenz[a,h]anthracene	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Diethylenetriamine	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Dimethyl phthalate					

3a-ABG Boundary: 8 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
Di-n-octyl phthalate					
Di-n-propyladipate	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Dioctylsebacate	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Di(2-ethylhexyl)phthalate					
Ethyl benzene					
Fluoranthene					
Fluorene					
Hexane					
Hydrogen cyanide	3.28E-03	1.55E-03	1.05E-02	3.19E-03	1.23E-02
Isophoronedi-isocyanate	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Methane	6.36E-01	3.01E-01	2.03E+00	6.19E-01	2.39E+00
Naphthalene	1.58E-04	7.47E-05	5.05E-04	1.54E-04	5.92E-04
Nitric oxide	5.81E-01	2.75E-01	1.86E+00	5.66E-01	2.18E+00
Nitrogen dioxide	1.93E-01	9.13E-02	6.17E-01	1.88E-01	7.24E-01
N-Nitrosodiethylamine					
N-Nitrosodiphenylamine	9.99E-05	4.72E-05	3.19E-04	9.72E-05	3.75E-04
Olefins (VOs)					
Parafins (VOs)					
Particulates (PM-10)	2.60E+00	1.23E+00	8.32E+00	2.53E+00	9.76E+00
Phenanthrene					
Phenyldiisodecylphosphite	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Phenol	7.33E-04	3.46E-04	2.34E-03	7.13E-04	2.75E-03
Picric acid					
Pyrene	2.29E-05	1.08E-05	7.32E-05	2.23E-05	8.59E-05
Resorcinol	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Salicylic Acid	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Styrene					
Sulfur dioxide	1.20E-01	5.69E-02	3.84E-01	1.17E-01	4.51E-01
TNMHC	6.21E-02	2.93E-02	1.98E-01	6.04E-02	2.33E-01
TO-12 (TOT.ORGANICS,C2-C15)					
Toluene					
Triacetin	1.64E-06	7.75E-07	5.23E-06	1.59E-06	6.14E-06
Xylenes (isomers and mixture)					

3a-ABG Boundary: 8 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
HMX *					
RDX *					
2,4,6-Trinitrotoluene *					
2,4-Dinitrotoluene *	8.19E-04	3.87E-04	2.62E-03	7.97E-04	3.07E-03
2,6-Dinitrotoluene *	8.19E-04	3.87E-04	2.62E-03	7.97E-04	3.07E-03
Nitroglycerin *	6.55E-03	3.10E-03	2.09E-02	6.38E-03	2.46E-02
Nitroguanidine *	7.82E-03	3.69E-03	2.50E-02	7.60E-03	2.93E-02
Tetryl *					
Diphenylamine *					
2-Nitrodiphenylamine *					
Dibutylphthalate *	9.83E-04	4.65E-04	3.14E-03	9.56E-04	3.69E-03
Diethylphthalate *					
Aluminum **	5.83E-03	2.76E-03	1.86E-02	5.67E-03	2.19E-02
Antimony **					
Barium **	3.56E-02	1.68E-02	1.14E-01	3.46E-02	1.33E-01
Chromium **					
Iron **					
Lead **					
Nickel **					
Silicon **					
Tin **	3.59E-02	1.70E-02	1.15E-01	3.49E-02	1.35E-01
Zirconium **					
Aluminum ***					
Copper ***					
Manganese ***					
Zinc (Casing) ***					
Fiberglass ***					
Plastic ***					
Iron ***					

3a-ABG Boundary: 24 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
1-Nitropyrene	7.24E-07	3.42E-07	2.31E-06	7.05E-07	2.72E-06
1,3-Butadiene					
1,3,5-Trinitrobenzene	4.39E-07	2.08E-07	1.40E-06	4.27E-07	1.65E-06
1,4-Dichlorobenzene					
1,6-Dinitropyrene	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
2-Methyl naphthalene					
2-Methylphenol					
2-Naphthylamine	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
2-Nitronaphthalene	2.43E-06	1.15E-06	7.77E-06	2.37E-06	9.12E-06
2-Nitrophenol	1.82E-05	8.59E-06	5.80E-05	1.77E-05	6.81E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
4-Nitrophenol					
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Acenaphthylene					
Acetophenone					
alpha,alpha-Dimethylphenethylamine					
Ammonia	1.04E-03	4.92E-04	3.32E-03	1.01E-03	3.90E-03
Anthracene					
Aromatics (VOs, including benzene)					
Benzene	5.03E-04	2.38E-04	1.61E-03	4.90E-04	1.89E-03
Benzo[a]pyrene	1.95E-05	9.22E-06	6.23E-05	1.90E-05	7.31E-05
Benzo[b]fluoranthene					
Benz[c]acridine	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Benzyl alcohol					
Benzo[k]fluoranthene					
Benz[a]anthracene	3.41E-06	1.61E-06	1.09E-05	3.32E-06	1.28E-05
Butyl benzyl phthalate					
Carbon monoxide	3.19E-02	1.51E-02	1.02E-01	3.11E-02	1.20E-01
Chrysene					
Dibenzofurans	2.50E-03	1.18E-03	7.99E-03	2.43E-03	9.37E-03
Dibenz[a,h]anthracene	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Diethylenetriamine	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Dimethyl phthalate					

3a-ABG Boundary: 24 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
Di-n-octyl phthalate					
Di-n-propyladipate	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Dioctylsebacate	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Di(2-ethylhexyl)phthalate					
Ethyl benzene					
Fluoranthene					
Fluorene					
Hexane					
Hydrogen cyanide	1.04E-03	4.92E-04	3.32E-03	1.01E-03	3.90E-03
Isophoronedi-isocyanate	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Methane	2.02E-01	9.55E-02	6.45E-01	1.97E-01	7.57E-01
Naphthalene	5.01E-05	2.37E-05	1.60E-04	4.88E-05	1.88E-04
Nitric oxide	1.85E-01	8.73E-02	5.90E-01	1.80E-01	6.92E-01
Nitrogen dioxide	6.13E-02	2.90E-02	1.96E-01	5.97E-02	2.30E-01
N-Nitrosodiethylamine					
N-Nitrosodiphenylamine	3.17E-05	1.50E-05	1.01E-04	3.09E-05	1.19E-04
Olefins (VOs)					
Parafins (VOs)					
Particulates (PM-10)	8.27E-01	3.91E-01	2.64E+00	8.04E-01	3.10E+00
Phenanthrene					
Phenyldiisodecylphosphite	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Phenol	2.33E-04	1.10E-04	7.43E-04	2.26E-04	8.72E-04
Picric acid					
Pyrene	7.27E-06	3.44E-06	2.32E-05	7.08E-06	2.73E-05
Resorcinol	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Salicylic Acid	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Styrene					
Sulfur dioxide	3.82E-02	1.81E-02	1.22E-01	3.71E-02	1.43E-01
TNMHC	1.97E-02	9.31E-03	6.29E-02	1.92E-02	7.39E-02
TO-12 (TOT.ORGANICS,C2-C15)					
Toluene					
Triacetin	5.20E-07	2.46E-07	1.66E-06	5.06E-07	1.95E-06
Xylenes (isomers and mixture)					

3a-ABG Boundary: 24 Hour
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
HMX *					
RDX *					
2,4,6-Trinitrotoluene *					
2,4-Dinitrotoluene *	2.60E-04	1.23E-04	8.31E-04	2.53E-04	9.75E-04
2,6-Dinitrotoluene *	2.60E-04	1.23E-04	8.31E-04	2.53E-04	9.75E-04
Nitroglycerin *	2.08E-03	9.84E-04	6.65E-03	2.02E-03	7.80E-03
Nitroguanidine *	2.48E-03	1.17E-03	7.92E-03	2.41E-03	9.30E-03
Tetryl *					
Diphenylamine *					
2-Nitrodiphenylamine *					
Dibutylphthalate *	3.12E-04	1.48E-04	9.97E-04	3.04E-04	1.17E-03
Diethylphthalate *					
Aluminum **	1.85E-03	8.75E-04	5.91E-03	1.80E-03	6.94E-03
Antimony **					
Barium **	1.13E-02	5.34E-03	3.60E-02	1.10E-02	4.23E-02
Chromium **					
Iron **					
Lead **					
Nickel **					
Silicon **					
Tin **	1.14E-02	5.38E-03	3.64E-02	1.11E-02	4.27E-02
Zirconium **					
Aluminum ***					
Copper ***					
Manganese ***					
Zinc (Casing) ***					
Fiberglass ***					
Plastic ***					
Iron ***					

3a-ABG Boundary: Quarterly
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
1-Nitropyrene	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
1,3-Butadiene					
1,3,5-Trinitrobenzene	5.37E-08	2.54E-08	1.71E-07	5.22E-08	2.01E-07
1,4-Dichlorobenzene					
1,6-Dinitropyrene	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
2-Methyl naphthalene					
2-Methylphenol					
2-Naphthylamine	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
2-Nitronaphthalene	2.79E-07	1.32E-07	8.92E-07	2.72E-07	1.05E-06
2-Nitrophenol	1.70E-06	8.05E-07	5.44E-06	1.66E-06	6.38E-06
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
4-Nitrophenol					
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Acenaphthylene					
Acetophenone					
alpha,alpha-Dimethylphenethylamine					
Ammonia	2.13E-04	1.01E-04	6.80E-04	2.07E-04	7.98E-04
Anthracene					
Aromatics (VOs, including benzene)					
Benzene	5.96E-05	2.82E-05	1.90E-04	5.80E-05	2.24E-04
Benzo[a]pyrene	1.59E-06	7.50E-07	5.07E-06	1.54E-06	5.95E-06
Benzo[b]fluoranthene					
Benz[c]acridine	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Benzyl alcohol					
Benzo[k]fluoranthene					
Benz[a]anthracene	3.47E-07	1.64E-07	1.11E-06	3.37E-07	1.30E-06
Butyl benzyl phthalate					
Carbon monoxide	4.20E-03	1.98E-03	1.34E-02	4.08E-03	1.57E-02
Chrysene					
Dibenzofurans	1.84E-04	8.68E-05	5.87E-04	1.79E-04	6.89E-04
Dibenz[a,h]anthracene	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Diethylenetriamine	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Dimethyl phthalate					

3a-ABG Boundary: Quarterly
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
Di-n-octyl phthalate					
Di-n-propyladipate	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Dioctylsebacate	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Di(2-ethylhexyl)phthalate					
Ethyl benzene					
Fluoranthene					
Fluorene					
Hexane					
Hydrogen cyanide	2.13E-04	1.01E-04	6.80E-04	2.07E-04	7.98E-04
Isophoronedi-isocyanate	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Methane	1.57E-02	7.41E-03	5.01E-02	1.52E-02	5.88E-02
Naphthalene	5.40E-06	2.55E-06	1.73E-05	5.26E-06	2.03E-05
Nitric oxide	2.64E-02	1.25E-02	8.42E-02	2.56E-02	9.88E-02
Nitrogen dioxide	7.96E-03	3.77E-03	2.54E-02	7.75E-03	2.99E-02
N-Nitrosodiethylamine					
N-Nitrosodiphenylamine	2.43E-06	1.15E-06	7.77E-06	2.37E-06	9.12E-06
Olefins (VOs)					
Parafins (VOs)					
Particulates (PM-10)	1.13E-01	5.37E-02	3.62E-01	1.10E-01	4.25E-01
Phenanthrene					
Phenyldiisodecylphosphite	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Phenol	2.46E-05	1.17E-05	7.87E-05	2.40E-05	9.24E-05
Picric acid					
Pyrene	6.40E-07	3.03E-07	2.04E-06	6.23E-07	2.40E-06
Resorcinol	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Salicylic Acid	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Styrene					
Sulfur dioxide	2.68E-03	1.27E-03	8.56E-03	2.61E-03	1.01E-02
TNMHC	2.39E-03	1.13E-03	7.62E-03	2.32E-03	8.94E-03
TO-12 (TOT.ORGANICS,C2-C15)					
Toluene					
Triacetin	1.06E-07	5.03E-08	3.40E-07	1.04E-07	3.99E-07
Xylenes (isomers and mixture)					

3a-ABG Boundary: Quarterly
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
HMX *					
RDX *					
2,4,6-Trinitrotoluene *					
2,4-Dinitrotoluene *	5.32E-05	2.51E-05	1.70E-04	5.18E-05	1.99E-04
2,6-Dinitrotoluene *	5.32E-05	2.51E-05	1.70E-04	5.18E-05	1.99E-04
Nitroglycerin *	4.26E-04	2.01E-04	1.36E-03	4.14E-04	1.60E-03
Nitroguanidine *	5.08E-04	2.40E-04	1.62E-03	4.94E-04	1.90E-03
Tetryl *					
Diphenylamine *					
2-Nitrodiphenylamine *					
Dibutylphthalate *	6.38E-05	3.02E-05	2.04E-04	6.21E-05	2.39E-04
Diethylphthalate *					
Aluminum **	3.79E-04	1.79E-04	1.21E-03	3.69E-04	1.42E-03
Antimony **					
Barium **	2.31E-03	1.09E-03	7.37E-03	2.25E-03	8.66E-03
Chromium **					
Iron **					
Lead **					
Nickel **					
Silicon **					
Tin **	2.33E-03	1.10E-03	7.44E-03	2.27E-03	8.74E-03
Zirconium **					
Aluminum ***					
Copper ***					
Manganese ***					
Zinc (Casing) ***					
Fiberglass ***					
Plastic ***					
Iron ***.					

3a-ABG Boundary: Annual
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
1-Nitropyrene	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
1,3-Butadiene					
1,3,5-Trinitrobenzene	1.34E-08	6.34E-09	4.28E-08	1.31E-08	5.03E-08
1,4-Dichlorobenzene					
1,6-Dinitropyrene	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
2-Methyl naphthalene					
2-Methylphenol					
2-Naphthylamine	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
2-Nitronaphthalene	6.98E-08	3.30E-08	2.23E-07	6.79E-08	2.62E-07
2-Nitrophenol	4.26E-07	2.01E-07	1.36E-06	4.14E-07	1.60E-06
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
4-Nitrophenol					
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Acenaphthylene					
Acetophenone					
alpha,alpha-Dimethylphenethylamine					
Ammonia	5.32E-05	2.51E-05	1.70E-04	5.18E-05	1.99E-04
Anthracene					
Aromatics (VOs, including benzene)					
Benzene	1.49E-05	7.05E-06	4.76E-05	1.45E-05	5.59E-05
Benzo[a]pyrene	3.97E-07	1.88E-07	1.27E-06	3.86E-07	1.49E-06
Benzo[b]fluoranthene					
Benz[c]acridine	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Benzyl alcohol					
Benzo[k]fluoranthene					
Benz[a]anthracene	8.66E-08	4.10E-08	2.77E-07	8.43E-08	3.25E-07
Butyl benzyl phthalate					
Carbon monoxide	1.05E-03	4.96E-04	3.35E-03	1.02E-03	3.93E-03
Chrysene					
Dibenzofurans	4.59E-05	2.17E-05	1.47E-04	4.47E-05	1.72E-04
Dibenz[a,h]anthracene	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Diethylenetriamine	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Dimethyl phthalate					

3a-ABG Boundary: Annual
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
Di-n-octyl phthalate					
Di-n-propyladipate	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Dioctylsebacate	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Di(2-ethylhexyl)phthalate					
Ethyl benzene					
Fluoranthene					
Fluorene					
Hexane					
Hydrogen cyanide	5.32E-05	2.51E-05	1.70E-04	5.18E-05	1.99E-04
Isophoronedi-isocyanate	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Methane	3.92E-03	1.85E-03	1.25E-02	3.81E-03	1.47E-02
Naphthalene	1.35E-06	6.38E-07	4.31E-06	1.31E-06	5.06E-06
Nitric oxide	6.59E-03	3.11E-03	2.10E-02	6.41E-03	2.47E-02
Nitrogen dioxide	1.99E-03	9.41E-04	6.36E-03	1.94E-03	7.47E-03
N-Nitrosodiethylamine					
N-Nitrosodiphenylamine	6.08E-07	2.88E-07	1.94E-06	5.92E-07	2.28E-06
Olefins (VOs)					
Parafins (VOs)					
Particulates (PM-10)	2.84E-02	1.34E-02	9.06E-02	2.76E-02	1.06E-01
Phenanthrene					
Phenyldiisodecylphosphite	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Phenol	6.16E-06	2.91E-06	1.97E-05	5.99E-06	2.31E-05
Picric acid					
Pyrene	1.60E-07	7.56E-08	5.11E-07	1.56E-07	6.00E-07
Resorcinol	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Salicylic Acid	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Styrene					
Sulfur dioxide	6.70E-04	3.17E-04	2.14E-03	6.52E-04	2.51E-03
TNMHC	5.96E-04	2.82E-04	1.90E-03	5.80E-04	2.24E-03
TO-12 (TOT.ORGANICS,C2-C15)					
Toluene					
Triacetin	2.66E-08	1.26E-08	8.50E-08	2.59E-08	9.97E-08
Xylenes (isomers and mixture)					

3a-ABG Boundary: Annual
OB of Propellants

Contaminant	Receptor				
	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
HMX *					
RDX *					
2,4,6-Trinitrotoluene *					
2,4-Dinitrotoluene *	1.33E-05	6.29E-06	4.25E-05	1.29E-05	4.99E-05
2,6-Dinitrotoluene *	1.33E-05	6.29E-06	4.25E-05	1.29E-05	4.99E-05
Nitroglycerin *	1.06E-04	5.03E-05	3.40E-04	1.04E-04	3.99E-04
Nitroguanidine *	1.27E-04	6.00E-05	4.05E-04	1.23E-04	4.76E-04
Tetryl *					
Diphenylamine *					
2-Nitrodiphenylamine *					
Dibutylphthalate *	1.60E-05	7.54E-06	5.10E-05	1.55E-05	5.98E-05
Diethylphthalate *					
Aluminum **	9.47E-05	4.48E-05	3.02E-04	9.21E-05	3.55E-04
Antimony **					
Barium **	5.77E-04	2.73E-04	1.84E-03	5.62E-04	2.16E-03
Chromium **					
Iron **					
Lead **					
Nickel **					
Silicon **					
Tin **	5.83E-04	2.75E-04	1.86E-03	5.67E-04	2.18E-03
Zirconium **					
Aluminum ***					
Copper ***					
Manganese ***					
Zinc (Casing) ***					
Fiberglass ***					
Plastic ***					
Iron ***					

DISCRETE RECEPTORS

3a-ABG Discrete: 1 Hour
OB of Propellants

	Receptor								
Contaminant	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
1-Nitropyrene	6.05E-06	7.19E-06	4.45E-06		3.09E-13	6.37E-06	8.02E-06	7.19E-06	5.41E-06
1,3-Butadiene									
1,3,5-Trinitrobenzene	6.12E-06	4.36E-06	2.70E-06		1.87E-13	3.86E-06	4.86E-06	4.36E-06	3.28E-06
1,4-Dichlorobenzene									
1,6-Dinitropyrene	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
2-Methyl naphthalene									
2-Methylphenol									
2-Naphthylamine	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
2-Nitronaphthalene	3.39E-05	2.41E-05	1.49E-05		1.04E-12	2.14E-05	2.69E-05	2.41E-05	1.82E-05
2-Nitrophenol	2.53E-04	1.80E-04	1.12E-04		7.76E-12	1.60E-04	2.01E-04	1.80E-04	1.36E-04
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
4-Nitrophenol									
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Acenaphthylene									
Acetophenone									
alpha,alpha-Dimethylphenethylamine									
Ammonia	1.45E-02	1.03E-02	6.39E-03		4.44E-10	9.15E-03	1.15E-02	1.03E-02	7.77E-03
Anthracene									
Aromatics (VOs, including benzene)									
Benzene	7.01E-03	4.99E-03	3.09E-03		2.15E-10	4.43E-03	5.58E-03	4.99E-03	3.76E-03
Benzo[a]pyrene	2.72E-04	1.93E-04	1.20E-04		8.32E-12	1.72E-04	2.16E-04	1.93E-04	1.46E-04
Benzo[b]fluoranthene									
Benz[c]acridine	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Benzyl alcohol									
Benzo[k]fluoranthene									
Benz[a]anthracene	4.75E-05	3.38E-05	2.09E-05		1.46E-12	3.00E-05	3.78E-05	3.38E-05	2.55E-05
Butyl benzyl phthalate									
Carbon monoxide	4.45E-01	3.17E-01	1.96E-01		1.36E-08	2.81E-01	3.54E-01	3.17E-01	2.39E-01
Chrysene									
Dibenzofurans	3.48E-02	2.48E-02	1.54E-02		1.07E-09	2.20E-02	2.77E-02	2.48E-02	1.87E-02
Dibenz[a,h]anthracene	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Diethylenetriamine	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Dimethyl phthalate									
Di-n-octyl phthalate									
Di-n-propyladipate	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Dioctylsebacate	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Di(2-ethylhexyl)phthalate									
Ethyl benzene									
Fluoranthene									
Fluorene									
Hexane									
Hydrogen cyanide	1.45E-02	1.03E-02	6.39E-03		4.44E-10	9.15E-03	1.15E-02	1.03E-02	7.77E-03

3a-ABG Discrete: 1 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Isophoronedi-isocyanate	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Methane	2.81E+00	2.00E+00	1.24E+00		8.62E-08	1.78E+00	2.24E+00	2.00E+00	1.51E+00
Naphthalene	6.99E-04	4.97E-04	3.08E-04		2.14E-11	4.41E-04	5.55E-04	4.97E-04	3.75E-04
Nitric oxide	2.57E+00	1.83E+00	1.13E+00		7.88E-08	1.62E+00	2.04E+00	1.83E+00	1.38E+00
Nitrogen dioxide	8.54E-01	6.09E-01	3.77E-01		2.62E-08	5.40E-01	6.79E-01	6.09E-01	4.58E-01
N-Nitrosodiethylamine									
N-Nitrosodiphenylamine	4.42E-04	3.15E-04	1.95E-04		1.35E-11	2.79E-04	3.51E-04	3.15E-04	2.37E-04
Olefins (VOs)									
Parafins (VOs)									
Particulates (PM-10)	1.15E+01	8.20E+00	5.08E+00		3.53E-07	7.27E+00	9.15E+00	8.20E+00	6.17E+00
Phenanthrene									
Phenyldiisodecylphosphite	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Phenol	3.24E-03	2.31E-03	1.43E-03		9.93E-11	2.05E-03	2.58E-03	2.31E-03	1.74E-03
Picric acid									
Pyrene	1.01E-04	7.22E-05	4.47E-05		3.10E-12	6.40E-05	8.05E-05	7.22E-05	5.43E-05
Resorcinol	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Salicylic Acid	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Styrene									
Sulfur dioxide	5.32E-01	3.79E-01	2.35E-01		1.63E-08	3.36E-01	4.23E-01	3.79E-01	2.85E-01
TNMHC	2.74E-01	1.95E-01	1.21E-01		8.41E-09	1.73E-01	2.18E-01	1.95E-01	1.47E-01
TO-12 (TOT.ORGANICS,C2-C15)									
Toluene									
Triacetin	7.25E-06	5.16E-06	3.20E-06		2.22E-13	4.58E-06	5.76E-06	5.16E-06	3.89E-06
Xylenes (isomers and mixture)									
HMX *									
RDX *									
2,4,6-Trinitrotoluene *									
2,4-Dinitrotoluene *	3.62E-03	2.58E-03	1.60E-03		1.11E-10	2.29E-03	2.88E-03	2.58E-03	1.94E-03
2,6-Dinitrotoluene *	3.62E-03	2.58E-03	1.60E-03		1.11E-10	2.29E-03	2.88E-03	2.58E-03	1.94E-03
Nitroglycerin *	2.90E-02	2.06E-02	1.28E-02		8.88E-10	1.83E-02	2.30E-02	2.06E-02	1.55E-02
Nitroguanidine *	3.46E-02	2.46E-02	1.52E-02		1.06E-09	2.18E-02	2.75E-02	2.46E-02	1.85E-02
Tetryl *									
Diphenylamine *									
2-Nitrodiphenylamine *									
Dibutylphthalate *	4.35E-03	3.10E-03	1.92E-03		1.33E-10	2.75E-03	3.46E-03	3.10E-03	2.33E-03
Diethylphthalate *									
Aluminum **	2.58E-02	1.84E-02	1.14E-02		7.90E-10	1.63E-02	2.05E-02	1.84E-02	1.38E-02
Antimony **									
Barium **	1.57E-01	1.12E-01	6.93E-02		4.82E-09	9.93E-02	1.25E-01	1.12E-01	8.43E-02
Chromium **									
Iron **									
Lead **									

3a-ABG Discrete: 1 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Nickel **									
Silicon **									
Tin **	1.59E-01	1.13E-01	7.00E-02		4.86E-09	1.00E-01	1.26E-01	1.13E-01	8.51E-02
Zirconium **									
Aluminum ***									
Copper ***									
Manganese ***									
Zinc (Casing) ***									
Fiberglass ***									
Plastic ***									
Iron ***									

3a-ABG Discrete: 3 Hour
OB of Propellants

	Receptor								
Contaminant	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
1-Nitropyrene	6.05E-06	4.31E-06	2.67E-06		1.85E-13	3.82E-06	4.81E-06	4.31E-06	3.25E-06
1,3-Butadiene									
1,3,5-Trinitrobenzene	3.67E-06	2.61E-06	1.62E-06		1.12E-13	2.32E-06	2.92E-06	2.61E-06	1.97E-06
1,4-Dichlorobenzene									
1,6-Dinitropyrene	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
2-Methyl naphthalene									
2-Methylphenol									
2-Naphthylamine	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
2-Nitronaphthalene	2.03E-05	1.45E-05	8.97E-06		6.23E-13	1.28E-05	1.62E-05	1.45E-05	1.09E-05
2-Nitrophenol	1.52E-04	1.08E-04	6.70E-05		4.65E-12	9.59E-05	1.21E-04	1.08E-04	8.14E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
4-Nitrophenol									
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Acenaphthylene									
Acetophenone									
alpha,alpha-Dimethylphenethylamine									
Ammonia	8.69E-03	6.19E-03	3.83E-03		2.66E-10	5.49E-03	6.91E-03	6.19E-03	4.66E-03
Anthracene									
Aromatics (VOs, including benzene)									
Benzene	4.21E-03	3.00E-03	1.86E-03		1.29E-10	2.66E-03	3.35E-03	3.00E-03	2.26E-03
Benzo[a]pyrene	1.63E-04	1.16E-04	7.19E-05		4.99E-12	1.03E-04	1.30E-04	1.16E-04	8.74E-05
Benzo[b]fluoranthene									
Benz[c]acridine	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Benzyl alcohol									
Benzo[k]fluoranthene									
Benz[a]anthracene	2.85E-05	2.03E-05	1.26E-05		8.73E-13	1.80E-05	2.27E-05	2.03E-05	1.53E-05
Butyl benzyl phthalate									
Carbon monoxide	2.67E-01	1.90E-01	1.18E-01		8.18E-09	1.69E-01	2.12E-01	1.90E-01	1.43E-01
Chrysene									
Dibenzofurans	2.09E-02	1.49E-02	9.21E-03		6.40E-10	1.32E-02	1.66E-02	1.49E-02	1.12E-02
Dibenz[a,h]anthracene	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Diethylenetriamine	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Dimethyl phthalate									
Di-n-octyl phthalate									
Di-n-propyladipate	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Dioctylsebacate	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Di(2-ethylhexyl)phthalate									
Ethyl benzene									
Fluoranthene									
Fluorene									
Hexane									
Hydrogen cyanide	8.69E-03	6.19E-03	3.83E-03		2.66E-10	5.49E-03	6.91E-03	6.19E-03	4.66E-03

3a-ABG Discrete: 3 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Isophoronedi-isocyanate	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Methane	1.69E+00	1.20E+00	7.45E-01		5.17E-08	1.07E+00	1.34E+00	1.20E+00	9.05E-01
Naphthalene	4.19E-04	2.98E-04	1.85E-04		1.28E-11	2.65E-04	3.33E-04	2.98E-04	2.25E-04
Nitric oxide	1.54E+00	1.10E+00	6.80E-01		4.73E-08	9.74E-01	1.23E+00	1.10E+00	8.27E-01
Nitrogen dioxide	5.13E-01	3.65E-01	2.26E-01		1.57E-08	3.24E-01	4.08E-01	3.65E-01	2.75E-01
N-Nitrosodiethylamine									
N-Nitrosodiphenylamine	2.65E-04	1.89E-04	1.17E-04		8.13E-12	1.67E-04	2.11E-04	1.89E-04	1.42E-04
Olefins (VOs)									
Parafins (VOs)									
Particulates (PM-10)	6.91E+00	4.92E+00	3.05E+00		2.12E-07	4.36E+00	5.49E+00	4.92E+00	3.70E+00
Phenanthrene									
Phenyldiisodecylphosphite	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Phenol	1.94E-03	1.38E-03	8.57E-04		5.96E-11	1.23E-03	1.55E-03	1.38E-03	1.04E-03
Picric acid									
Pyrene	6.08E-05	4.33E-05	2.68E-05		1.86E-12	3.84E-05	4.83E-05	4.33E-05	3.26E-05
Resorcinol	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Salicylic Acid	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Styrene									
Sulfur dioxide	3.19E-01	2.27E-01	1.41E-01		9.78E-09	2.02E-01	2.54E-01	2.27E-01	1.71E-01
TNMHC	1.65E-01	1.17E-01	7.26E-02		5.05E-09	1.04E-01	1.31E-01	1.17E-01	8.83E-02
TO-12 (TOT.ORGANICS,C2-C15)									
Toluene									
Triacetin	4.35E-06	3.10E-06	1.92E-06		1.33E-13	2.75E-06	3.46E-06	3.10E-06	2.33E-06
Xylenes (isomers and mixture)									
HMX *									
RDX *									
2,4,6-Trinitrotoluene *									
2,4-Dinitrotoluene *	2.17E-03	1.55E-03	9.59E-04		6.66E-11	1.37E-03	1.73E-03	1.55E-03	1.17E-03
2,6-Dinitrotoluene *	2.17E-03	1.55E-03	9.59E-04		6.66E-11	1.37E-03	1.73E-03	1.55E-03	1.17E-03
Nitroglycerin *	1.74E-02	1.24E-02	7.67E-03		5.33E-10	1.10E-02	1.38E-02	1.24E-02	9.32E-03
Nitroguanidine *	2.07E-02	1.48E-02	9.14E-03		6.35E-10	1.31E-02	1.65E-02	1.48E-02	1.11E-02
Tetryl *									
Diphenylamine *									
2-Nitrodiphenylamine *									
Dibutylphthalate *	2.61E-03	1.86E-03	1.15E-03		7.99E-11	1.65E-03	2.07E-03	1.86E-03	1.40E-03
Diethylphthalate *									
Aluminum **	1.55E-02	1.10E-02	6.82E-03		4.74E-10	9.77E-03	1.23E-02	1.10E-02	8.30E-03
Antimony **									
Barium **	9.43E-02	6.72E-02	4.16E-02		2.89E-09	5.96E-02	7.50E-02	6.72E-02	5.06E-02
Chromium **									
Iron **									
Lead **									

3a-ABG Discrete: 3 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Nickel **									
Silicon **									
Tin **	9.52E-02	6.78E-02	4.20E-02		2.92E-09	6.01E-02	7.57E-02	6.78E-02	5.10E-02
Zirconium **									
Aluminum ***									
Copper ***									
Manganese ***									
Zinc (Casing) ***									
Fiberglass ***									
Plastic ***									
Iron ***									

3a-ABG Discrete: 8 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
1-Nitropyrene	2.65E-06	1.89E-06	1.17E-06		8.12E-14	1.67E-06	2.11E-06	1.89E-06	1.42E-06
1,3-Butadiene									
1,3,5-Trinitrobenzene	1.61E-06	1.14E-06	7.08E-07		4.92E-14	1.01E-06	1.28E-06	1.14E-06	8.61E-07
1,4-Dichlorobenzene									
1,6-Dinitropyrene	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
2-Methyl naphthalene									
2-Methylphenol									
2-Naphthylamine	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
2-Nitronaphthalene	8.89E-06	6.33E-06	3.92E-06		2.73E-13	5.62E-06	7.07E-06	6.33E-06	4.77E-06
2-Nitrophenol	6.64E-05	4.73E-05	2.93E-05		2.04E-12	4.20E-05	5.28E-05	4.73E-05	3.56E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
4-Nitrophenol									
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Acenaphthylene									
Acetophenone									
alpha,alpha-Dimethylphenethylamine									
Ammonia	3.80E-03	2.71E-03	1.68E-03		1.17E-10	2.40E-03	3.02E-03	2.71E-03	2.04E-03
Anthracene									
Aromatics (VOs, including benzene)									
Benzene	1.84E-03	1.31E-03	8.12E-04		5.64E-11	1.16E-03	1.46E-03	1.31E-03	9.87E-04
Benzo[a]pyrene	7.13E-05	5.08E-05	3.14E-05		2.19E-12	4.50E-05	5.67E-05	5.08E-05	3.82E-05
Benzo[b]fluoranthene									
Benz[c]acridine	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Benzyl alcohol									
Benzo[k]fluoranthene									
Benz[a]anthracene	1.25E-05	8.88E-06	5.50E-06		3.82E-13	7.87E-06	9.91E-06	8.88E-06	6.69E-06
Butyl benzyl phthalate									
Carbon monoxide	1.17E-01	8.32E-02	5.15E-02		3.58E-09	7.37E-02	9.28E-02	8.32E-02	6.26E-02
Chrysene									
Dibenzofurans	9.14E-03	6.51E-03	4.03E-03		2.80E-10	5.77E-03	7.27E-03	6.51E-03	4.90E-03
Dibenz[a,h]anthracene	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Diethylenetriamine	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Dimethyl phthalate									
Di-n-octyl phthalate									
Di-n-propyladipate	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Dioctylsebacate	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Di(2-ethylhexyl)phthalate									
Ethyl benzene									
Fluoranthene									
Fluorene									
Hexane									
Hydrogen cyanide	3.80E-03	2.71E-03	1.68E-03		1.17E-10	2.40E-03	3.02E-03	2.71E-03	2.04E-03

3a-ABG Discrete: 8 Hour
OB of Propellants

	Receptor								
Contaminant	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Isophoronedi-isocyanate	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Methane	7.39E-01	5.26E-01	3.26E-01		2.26E-08	4.66E-01	5.87E-01	5.26E-01	3.96E-01
Naphthalene	1.83E-04	1.31E-04	8.09E-05		5.62E-12	1.16E-04	1.46E-04	1.31E-04	9.83E-05
Nitric oxide	6.75E-01	4.81E-01	2.98E-01		2.07E-08	4.26E-01	5.37E-01	4.81E-01	3.62E-01
Nitrogen dioxide	2.24E-01	1.60E-01	9.89E-02		6.87E-09	1.42E-01	1.78E-01	1.60E-01	1.20E-01
N-Nitrosodiethylamine									
N-Nitrosodiphenylamine	1.16E-04	8.26E-05	5.12E-05		3.55E-12	7.33E-05	9.22E-05	8.26E-05	6.22E-05
Olefins (VOs)									
Parafins (VOs)									
Particulates (PM-10)	3.02E+00	2.15E+00	1.33E+00		9.26E-08	1.91E+00	2.40E+00	2.15E+00	1.62E+00
Phenanthrene									
Phenyldiisodecylphosphite	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Phenol	8.50E-04	6.06E-04	3.75E-04		2.61E-11	5.37E-04	6.76E-04	6.06E-04	4.56E-04
Picric acid									
Pyrene	2.66E-05	1.89E-05	1.17E-05		8.15E-13	1.68E-05	2.11E-05	1.89E-05	1.43E-05
Resorcinol	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Salicylic Acid	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Styrene									
Sulfur dioxide	1.40E-01	9.94E-02	6.16E-02		4.28E-09	8.82E-02	1.11E-01	9.94E-02	7.49E-02
TNMHC	7.20E-02	5.13E-02	3.18E-02		2.21E-09	4.55E-02	5.73E-02	5.13E-02	3.86E-02
TO-12 (TOT.ORGANICS,C2-C15)									
Toluene									
Triacetin	1.90E-06	1.35E-06	8.39E-07		5.83E-14	1.20E-06	1.51E-06	1.35E-06	1.02E-06
Xylenes (isomers and mixture)									
HMX *									
RDX *									
2,4,6-Trinitrotoluene *									
2,4-Dinitrotoluene *	9.51E-04	6.77E-04	4.19E-04		2.91E-11	6.00E-04	7.56E-04	6.77E-04	5.10E-04
2,6-Dinitrotoluene *	9.51E-04	6.77E-04	4.19E-04		2.91E-11	6.00E-04	7.56E-04	6.77E-04	5.10E-04
Nitroglycerin *	7.61E-03	5.42E-03	3.35E-03		2.33E-10	4.80E-03	6.05E-03	5.42E-03	4.08E-03
Nitroguanidine *	9.07E-03	6.46E-03	4.00E-03		2.78E-10	5.73E-03	7.21E-03	6.46E-03	4.86E-03
Tetryl *									
Diphenylamine *									
2-Nitrodiphenylamine *									
Dibutylphthalate *	1.14E-03	8.13E-04	5.03E-04		3.50E-11	7.21E-04	9.07E-04	8.13E-04	6.12E-04
Diethylphthalate *									
Aluminum **	6.77E-03	4.82E-03	2.99E-03		2.07E-10	4.28E-03	5.38E-03	4.82E-03	3.63E-03
Antimony **									
Barium **	4.13E-02	2.94E-02	1.82E-02		1.26E-09	2.61E-02	3.28E-02	2.94E-02	2.21E-02
Chromium **									
Iron **									
Lead **									

3a-ABG Discrete: 8 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Nickel **									
Silicon **									
Tin **	4.16E-02	2.97E-02	1.84E-02		1.28E-09	2.63E-02	3.31E-02	2.97E-02	2.23E-02
Zirconium **									
Aluminum ***									
Copper ***									
Manganese ***									
Zinc (Casing) ***									
Fiberglass ***									
Plastic ***									
Iron ***									

3a-ABG Discrete: 24 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
1-Nitropyrene	8.41E-07	5.99E-07	3.71E-07		2.58E-14	5.31E-07	6.68E-07	5.99E-07	4.51E-07
1,3-Butadiene									
1,3,5-Trinitrobenzene	5.10E-07	3.63E-07	2.25E-07		1.56E-14	3.22E-07	4.05E-07	3.63E-07	2.73E-07
1,4-Dichlorobenzene									
1,6-Dinitropyrene	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
2-Methyl naphthalene									
2-Methylphenol									
2-Naphthylamine	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
2-Nitronaphthalene	2.82E-06	2.01E-06	1.25E-06		8.65E-14	1.78E-06	2.24E-06	2.01E-06	1.51E-06
2-Nitrophenol	2.11E-05	1.50E-05	9.30E-06		6.46E-13	1.33E-05	1.68E-05	1.50E-05	1.13E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
4-Nitrophenol									
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Acenaphthylene									
Acetophenone									
alpha,alpha-Dimethylphenethylamine									
Ammonia	1.21E-03	8.60E-04	5.33E-04		3.70E-11	7.63E-04	9.60E-04	8.60E-04	6.48E-04
Anthracene									
Aromatics (VOs, including benzene)									
Benzene	5.84E-04	4.16E-04	2.58E-04		1.79E-11	3.69E-04	4.65E-04	4.16E-04	3.13E-04
Benzo[a]pyrene	2.26E-05	1.61E-05	9.98E-06		6.94E-13	1.43E-05	1.80E-05	1.61E-05	1.21E-05
Benzo[b]fluoranthene									
Benz[c]acridine	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Benzyl alcohol									
Benzo[k]fluoranthene									
Benz[a]anthracene	3.96E-06	2.82E-06	1.75E-06		1.21E-13	2.50E-06	3.15E-06	2.82E-06	2.12E-06
Butyl benzyl phthalate									
Carbon monoxide	3.71E-02	2.64E-02	1.63E-02		1.14E-09	2.34E-02	2.95E-02	2.64E-02	1.99E-02
Chrysene									
Dibenzofurans	2.90E-03	2.07E-03	1.28E-03		8.89E-11	1.83E-03	2.31E-03	2.07E-03	1.56E-03
Dibenz[a,h]anthracene	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Diethylenetriamine	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Dimethyl phthalate									
Di-n-octyl phthalate									
Di-n-propyladipate	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Dioctylsebacate	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Di(2-ethylhexyl)phthalate									
Ethyl benzene									
Fluoranthene									
Fluorene									
Hexane									
Hydrogen cyanide	1.21E-03	8.60E-04	5.33E-04		3.70E-11	7.63E-04	9.60E-04	8.60E-04	6.48E-04

3a-ABG Discrete: 24 Hour
OB of Propellants

Contaminant	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	Receptor ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Isophoronedi-isocyanate	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Methane	2.35E-01	1.67E-01	1.03E-01		7.19E-09	1.48E-01	1.86E-01	1.67E-01	1.26E-01
Naphthalene	5.82E-05	4.15E-05	2.57E-05		1.78E-12	3.68E-05	4.63E-05	4.15E-05	3.12E-05
Nitric oxide	2.14E-01	1.53E-01	9.45E-02		6.57E-09	1.35E-01	1.70E-01	1.53E-01	1.15E-01
Nitrogen dioxide	7.12E-02	5.07E-02	3.14E-02		2.18E-09	4.50E-02	5.66E-02	5.07E-02	3.82E-02
N-Nitrosodiethylamine									
N-Nitrosodiphenylamine	3.68E-05	2.62E-05	1.62E-05		1.13E-12	2.33E-05	2.93E-05	2.62E-05	1.97E-05
Olefins (VOs)									
Parafins (VOs)									
Particulates (PM-10)	9.59E-01	6.83E-01	4.23E-01		2.94E-08	6.06E-01	7.63E-01	6.83E-01	5.14E-01
Phenanthrene									
Phenyldiisodecylphosphite	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Phenol	2.70E-04	1.92E-04	1.19E-04		8.27E-12	1.70E-04	2.15E-04	1.92E-04	1.45E-04
Picric acid									
Pyrene	8.44E-06	6.01E-06	3.72E-06		2.59E-13	5.33E-06	6.71E-06	6.01E-06	4.53E-06
Resorcinol	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Salicylic Acid	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Styrene									
Sulfur dioxide	4.43E-02	3.16E-02	1.95E-02		1.36E-09	2.80E-02	3.52E-02	3.16E-02	2.38E-02
TNMHC	2.29E-02	1.63E-02	1.01E-02		7.01E-10	1.44E-02	1.82E-02	1.63E-02	1.23E-02
TO-12 (TOT.ORGANICS,C2-C15)									
Toluene									
Triacetin	6.04E-07	4.30E-07	2.66E-07		1.85E-14	3.81E-07	4.80E-07	4.30E-07	3.24E-07
Xylenes (isomers and mixture)									
HMX *									
RDX *									
2,4,6-Trinitrotoluene *									
2,4-Dinitrotoluene *	3.02E-04	2.15E-04	1.33E-04		9.25E-12	1.91E-04	2.40E-04	2.15E-04	1.62E-04
2,6-Dinitrotoluene *	3.02E-04	2.15E-04	1.33E-04		9.25E-12	1.91E-04	2.40E-04	2.15E-04	1.62E-04
Nitroglycerin *	2.42E-03	1.72E-03	1.07E-03		7.40E-11	1.53E-03	1.92E-03	1.72E-03	1.30E-03
Nitroguanidine *	2.88E-03	2.05E-03	1.27E-03		8.82E-11	1.82E-03	2.29E-03	2.05E-03	1.54E-03
Tetryl *									
Diphenylamine *									
2-Nitrodiphenylamine *									
Dibutylphthalate *	3.62E-04	2.58E-04	1.60E-04		1.11E-11	2.29E-04	2.88E-04	2.58E-04	1.94E-04
Diethylphthalate *									
Aluminum **	2.15E-03	1.53E-03	9.48E-04		6.59E-11	1.36E-03	1.71E-03	1.53E-03	1.15E-03
Antimony **									
Barium **	1.31E-02	9.33E-03	5.78E-03		4.01E-10	8.27E-03	1.04E-02	9.33E-03	7.03E-03
Chromium **									
Iron **									
Lead **									

3a-ABG Discrete: 24 Hour
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Nickel **									
Silicon **									
Tin **	1.32E-02	9.42E-03	5.83E-03		4.05E-10	8.35E-03	1.05E-02	9.42E-03	7.09E-03
Zirconium **									
Aluminum ***									
Copper ***									
Manganese ***									
Zinc (Casing) ***									
Fiberglass ***									
Plastic ***									
Iron ***									

3a-ABG Discrete: Quarterly
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
1-Nitropyrene	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
1,3-Butadiene									
1,3,5-Trinitrobenzene	6.23E-08	4.44E-08	2.75E-08		1.91E-15	3.93E-08	4.95E-08	4.44E-08	3.34E-08
1,4-Dichlorobenzene									
1,6-Dinitropyrene	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
2-Methyl naphthalene									
2-Methylphenol									
2-Naphthylamine	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
2-Nitronaphthalene	3.24E-07	2.31E-07	1.43E-07		9.93E-15	2.05E-07	2.58E-07	2.31E-07	1.74E-07
2-Nitrophenol	1.98E-06	1.41E-06	8.71E-07		6.06E-14	1.25E-06	1.57E-06	1.41E-06	1.06E-06
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
4-Nitrophenol									
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Acenaphthylene									
Acetophenone									
alpha,alpha-Dimethylphenethylamine									
Ammonia	2.47E-04	1.76E-04	1.09E-04		7.57E-12	1.56E-04	1.96E-04	1.76E-04	1.32E-04
Anthracene									
Aromatics (VOs, including benzene)									
Benzene	6.92E-05	4.93E-05	3.05E-05		2.12E-12	4.37E-05	5.50E-05	4.93E-05	3.71E-05
Benzo[a]pyrene	1.84E-06	1.31E-06	8.12E-07		5.64E-14	1.16E-06	1.46E-06	1.31E-06	9.88E-07
Benzo[b]fluoranthene									
Benz[c]acridine	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Benzyl alcohol									
Benzo[k]fluoranthene									
Benz[a]anthracene	4.02E-07	2.87E-07	1.77E-07		1.23E-14	2.54E-07	3.20E-07	2.87E-07	2.16E-07
Butyl benzyl phthalate									
Carbon monoxide	4.87E-03	3.47E-03	2.15E-03		1.49E-10	3.08E-03	3.87E-03	3.47E-03	2.61E-03
Chrysene									
Dibenzofurans	2.13E-04	1.52E-04	9.40E-05		6.53E-12	1.35E-04	1.69E-04	1.52E-04	1.14E-04
Dibenz[a,h]anthracene	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Diethylenetriamine	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Dimethyl phthalate									
Di-n-octyl phthalate									
Di-n-propyladipate	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Dioctylsebacate	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Di(2-ethylhexyl)phthalate									
Ethyl benzene									
Fluoranthene									
Fluorene									
Hexane									
Hydrogen cyanide	2.47E-04	1.76E-04	1.09E-04		7.57E-12	1.56E-04	1.96E-04	1.76E-04	1.32E-04

3a-ABG Discrete: Quarterly
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Isophoronedi-isocyanate	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Methane	1.82E-02	1.30E-02	8.02E-03		5.57E-10	1.15E-02	1.45E-02	1.30E-02	9.75E-03
Naphthalene	6.27E-06	4.47E-06	2.77E-06		1.92E-13	3.96E-06	4.99E-06	4.47E-06	3.36E-06
Nitric oxide	3.06E-02	2.18E-02	1.35E-02		9.37E-10	1.93E-02	2.43E-02	2.18E-02	1.64E-02
Nitrogen dioxide	9.25E-03	6.58E-03	4.08E-03		2.83E-10	5.84E-03	7.35E-03	6.58E-03	4.96E-03
N-Nitrosodiethylamine									
N-Nitrosodiphenylamine	2.83E-06	2.01E-06	1.25E-06		8.66E-14	1.78E-06	2.25E-06	2.01E-06	1.51E-06
Olefins (VOs)									
Parafins (VOs)									
Particulates (PM-10)	1.32E-01	9.38E-02	5.81E-02		4.04E-09	8.32E-02	1.05E-01	9.38E-02	7.06E-02
Phenanthrene									
Phenyldiisodecylphosphite	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Phenol	2.86E-05	2.04E-05	1.26E-05		8.77E-13	1.81E-05	2.27E-05	2.04E-05	1.53E-05
Picric acid									
Pyrene	7.43E-07	5.29E-07	3.28E-07		2.28E-14	4.69E-07	5.91E-07	5.29E-07	3.98E-07
Resorcinol	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Salicylic Acid	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Styrene									
Sulfur dioxide	3.11E-03	2.22E-03	1.37E-03		9.54E-11	1.97E-03	2.47E-03	2.22E-03	1.67E-03
TNMHC	2.77E-03	1.97E-03	1.22E-03		8.49E-11	1.75E-03	2.20E-03	1.97E-03	1.48E-03
TO-12 (TOT.ORGANICS,C2-C15)									
Toluene									
Triacetin	1.24E-07	8.80E-08	5.45E-08		3.78E-15	7.80E-08	9.82E-08	8.80E-08	6.62E-08
Xylenes (isomers and mixture)									
HMX *									
RDX *									
2,4,6-Trinitrotoluene *									
2,4-Dinitrotoluene *	6.18E-05	4.40E-05	2.72E-05		1.89E-12	3.90E-05	4.91E-05	4.40E-05	3.31E-05
2,6-Dinitrotoluene *	6.18E-05	4.40E-05	2.72E-05		1.89E-12	3.90E-05	4.91E-05	4.40E-05	3.31E-05
Nitroglycerin *	4.94E-04	3.52E-04	2.18E-04		1.51E-11	3.12E-04	3.93E-04	3.52E-04	2.65E-04
Nitroguanidine *	5.89E-04	4.20E-04	2.60E-04		1.81E-11	3.72E-04	4.68E-04	4.20E-04	3.16E-04
Tetryl *									
Diphenylamine *									
2-Nitrodiphenylamine *									
Dibutylphthalate *	7.41E-05	5.28E-05	3.27E-05		2.27E-12	4.68E-05	5.89E-05	5.28E-05	3.97E-05
Diethylphthalate *									
Aluminum **	4.40E-04	3.13E-04	1.94E-04		1.35E-11	2.78E-04	3.50E-04	3.13E-04	2.36E-04
Antimony **									
Barium **	2.68E-03	1.91E-03	1.18E-03		8.21E-11	1.69E-03	2.13E-03	1.91E-03	1.44E-03
Chromium **									
Iron **									
Lead **									

3a-ABG Discrete: Quarterly
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Nickel **									
Silicon **									
Tin **	2.70E-03	1.93E-03	1.19E-03		8.29E-11	1.71E-03	2.15E-03	1.93E-03	1.45E-03
Zirconium **									
Aluminum ***									
Copper ***									
Manganese ***									
Zinc (Casing) ***									
Fiberglass ***									
Plastic ***									
Iron ***									

3a-ABG Discrete: Annual
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
1-Nitropyrene	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
1,3-Butadiene									
1,3,5-Trinitrobenzene	1.56E-08	1.11E-08	6.87E-09		4.77E-16	9.83E-09	1.24E-08	1.11E-08	8.35E-09
1,4-Dichlorobenzene									
1,6-Dinitropyrene	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
2-Methyl naphthalene									
2-Methylphenol									
2-Naphthylamine	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
2-Nitronaphthalene	8.10E-08	5.77E-08	3.57E-08		2.48E-15	5.12E-08	6.44E-08	5.77E-08	4.35E-08
2-Nitrophenol	4.94E-07	3.52E-07	2.18E-07		1.51E-14	3.12E-07	3.93E-07	3.52E-07	2.65E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
4-Nitrophenol									
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Acenaphthylene									
Acetophenone									
alpha,alpha-Dimethylphenethylamine									
Ammonia	6.18E-05	4.40E-05	2.72E-05		1.89E-12	3.90E-05	4.91E-05	4.40E-05	3.31E-05
Anthracene									
Aromatics (VOs, including benzene)									
Benzene	1.73E-05	1.23E-05	7.63E-06		5.30E-13	1.09E-05	1.38E-05	1.23E-05	9.28E-06
Benzo[a]pyrene	4.61E-07	3.28E-07	2.03E-07		1.41E-14	2.91E-07	3.66E-07	3.28E-07	2.47E-07
Benzo[b]fluoranthene									
Benz[c]acridine	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Benzyl alcohol									
Benzo[k]fluoranthene									
Benz[a]anthracene	1.01E-07	7.16E-08	4.44E-08		3.08E-15	6.35E-08	8.00E-08	7.16E-08	5.39E-08
Butyl benzyl phthalate									
Carbon monoxide	1.22E-03	8.67E-04	5.37E-04		3.73E-11	7.69E-04	9.68E-04	8.67E-04	6.53E-04
Chrysene									
Dibenzofurans	5.33E-05	3.80E-05	2.35E-05		1.63E-12	3.37E-05	4.24E-05	3.80E-05	2.86E-05
Dibenz[a,h]anthracene	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Diethylenetriamine	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Dimethyl phthalate									
Di-n-octyl phthalate									
Di-n-propyladipate	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Dioctylsebacate	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Di(2-ethylhexyl)phthalate									
Ethyl benzene									
Fluoranthene									
Fluorene									
Hexane									
Hydrogen cyanide	6.18E-05	4.40E-05	2.72E-05		1.89E-12	3.90E-05	4.91E-05	4.40E-05	3.31E-05

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OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Isophoronedi-isocyanate	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Methane	4.55E-03	3.24E-03	2.01E-03		1.39E-10	2.87E-03	3.62E-03	3.24E-03	2.44E-03
Naphthalene	1.57E-06	1.12E-06	6.91E-07		4.80E-14	9.90E-07	1.25E-06	1.12E-06	8.41E-07
Nitric oxide	7.65E-03	5.45E-03	3.37E-03		2.34E-10	4.83E-03	6.08E-03	5.45E-03	4.10E-03
Nitrogen dioxide	2.31E-03	1.65E-03	1.02E-03		7.08E-11	1.46E-03	1.84E-03	1.65E-03	1.24E-03
N-Nitrosodiethylamine									
N-Nitrosodiphenylamine	7.06E-07	5.03E-07	3.11E-07		2.16E-14	4.46E-07	5.61E-07	5.03E-07	3.79E-07
Olefins (VOs)									
Parafins (VOs)									
Particulates (PM-10)	3.29E-02	2.35E-02	1.45E-02		1.01E-09	2.08E-02	2.62E-02	2.35E-02	1.77E-02
Phenanthrene									
Phenyldiisodecylphosphite	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Phenol	7.15E-06	5.09E-06	3.15E-06		2.19E-13	4.52E-06	5.69E-06	5.09E-06	3.84E-06
Picric acid									
Pyrene	1.86E-07	1.32E-07	8.19E-08		5.69E-15	1.17E-07	1.48E-07	1.32E-07	9.96E-08
Resorcinol	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Salicylic Acid	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Styrene									
Sulfur dioxide	7.78E-04	5.54E-04	3.43E-04		2.38E-11	4.91E-04	6.19E-04	5.54E-04	4.17E-04
TNMHC	6.92E-04	4.93E-04	3.05E-04		2.12E-11	4.37E-04	5.50E-04	4.93E-04	3.71E-04
TO-12 (TOT.ORGANICS,C2-C15)									
Toluene									
Triacetin	3.09E-08	2.20E-08	1.36E-08		9.46E-16	1.95E-08	2.45E-08	2.20E-08	1.66E-08
Xylenes (isomers and mixture)									
HMX *									
RDX *									
2,4,6-Trinitrotoluene *									
2,4-Dinitrotoluene *	1.54E-05	1.10E-05	6.81E-06		4.73E-13	9.75E-06	1.23E-05	1.10E-05	8.28E-06
2,6-Dinitrotoluene *	1.54E-05	1.10E-05	6.81E-06		4.73E-13	9.75E-06	1.23E-05	1.10E-05	8.28E-06
Nitroglycerin *	1.24E-04	8.80E-05	5.45E-05		3.78E-12	7.80E-05	9.82E-05	8.80E-05	6.62E-05
Nitroguanidine *	1.47E-04	1.05E-04	6.50E-05		4.51E-12	9.30E-05	1.17E-04	1.05E-04	7.90E-05
Tetryl *									
Diphenylamine *									
2-Nitrodiphenylamine *									
Dibutylphthalate *	1.85E-05	1.32E-05	8.17E-06		5.68E-13	1.17E-05	1.47E-05	1.32E-05	9.93E-06
Diethylphthalate *									
Aluminum **	1.10E-04	7.83E-05	4.85E-05		3.37E-12	6.94E-05	8.74E-05	7.83E-05	5.89E-05
Antimony **									
Barium **	6.70E-04	4.77E-04	2.95E-04		2.05E-11	4.23E-04	5.33E-04	4.77E-04	3.59E-04
Chromium **									
Iron **									
Lead **									

3a-ABG Discrete: Annual
OB of Propellants

Contaminant	Receptor								
	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
Nickel **									
Silicon **									
Tin **	6.76E-04	4.82E-04	2.98E-04		2.07E-11	4.27E-04	5.38E-04	4.82E-04	3.63E-04
Zirconium **									
Aluminum ***									
Copper ***									
Manganese ***									
Zinc (Casing) ***									
Fiberglass ***									
Plastic ***									
Iron ***									

APPENDIX D-9

RECEPTOR-SPECIFIC IMPACT CONCENTRATIONS ($\mu g/m^3$) FROM INDIVIDUAL TREATMENT OPERATIONS

Example Cases Shown:
East-northeast Boundary Receptor
Padanaram Discrete Offsite Receptor

BOUNDARY RECEPTORS

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	8.69E-06	2.90E-06	8.69E-06	8.75E-07	1.08E-07	1.36E-07	2.19E-07	2.19E-06
1,3-Butadiene								
1,3,5-Trinitrobenzene	5.27E-06	5.27E-06	5.27E-06	5.31E-07	6.58E-08	8.22E-08	1.33E-07	1.33E-06
1,4-Dichlorobenzene								
1,6-Dinitropyrene	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
2-Nitronaphthalene	2.92E-05	2.92E-05	2.92E-05	2.94E-06	3.64E-07	4.55E-07	7.35E-07	7.35E-06
2-Nitrophenol	2.18E-04	2.18E-04	2.18E-04	2.20E-05	2.72E-06	3.40E-06	5.49E-06	5.49E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	1.25E-02	1.25E-02	1.25E-02	1.26E-03	1.56E-04	1.95E-04	3.14E-04	3.14E-03
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	6.04E-03	6.04E-03	6.04E-03	6.08E-04	7.54E-05	9.43E-05	1.52E-04	1.52E-03
Benzo[a]pyrene	2.34E-04	2.34E-04	2.34E-04	2.36E-05	2.92E-06	3.65E-06	5.89E-06	5.89E-05
Benzo[b]fluoranthene								
Benz[c]acridine	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	4.09E-05	4.09E-05	4.09E-05	4.12E-06	5.11E-07	6.38E-07	1.03E-06	1.03E-05
Butyl benzyl phthalate								
Carbon monoxide	3.83E-01	1.28E-01	3.83E-01	3.86E-02	4.78E-03	5.98E-03	9.64E-03	9.64E-02
Chrysene								
Dibenzofurans	3.00E-02	1.00E-02	3.00E-02	3.02E-03	3.74E-04	4.68E-04	7.55E-04	7.55E-03
Dibenz[a,h]anthracene	6.24E-06	2.08E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Diethylenetriamine	6.24E-06	2.08E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	6.24E-06	2.08E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Dioctylsebacate	6.24E-06	2.08E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	1.25E-02	1.25E-02	1.25E-02	1.26E-03	1.56E-04	1.95E-04	3.14E-04	3.14E-03

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Isophoronedi-isocyanate	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Methane	2.42E+00	2.42E+00	2.42E+00	2.44E-01	3.03E-02	3.78E-02	6.10E-02	6.10E-01
Naphthalene	6.02E-04	6.02E-04	6.02E-04	6.06E-05	7.51E-06	9.39E-06	1.51E-05	1.51E-04
Nitric oxide	2.22E+00	2.22E+00	2.22E+00	2.23E-01	2.76E-02	3.46E-02	5.57E-02	5.57E-01
Nitrogen dioxide	7.36E-01	7.36E-01	7.36E-01	7.41E-02	9.19E-03	1.15E-02	1.85E-02	1.85E-01
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	3.81E-04	3.81E-04	3.81E-04	3.83E-05	4.75E-06	5.94E-06	9.58E-06	9.58E-05
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	9.92E+00	9.92E+00	9.92E+00	9.99E-01	1.24E-01	1.55E-01	2.50E-01	2.50E+00
Phenanthrene								
Phenyldiisodecylphosphite	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Phenol	2.79E-03	2.79E-03	2.79E-03	2.81E-04	3.48E-05	4.35E-05	7.02E-05	7.02E-04
Picric acid								
Pyrene	8.73E-05	8.73E-05	8.73E-05	8.79E-06	1.09E-06	1.36E-06	2.20E-06	2.20E-05
Resorcinol	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Salicylic Acid	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Styrene								
Sulfur dioxide	4.58E-01	4.58E-01	4.58E-01	4.61E-02	5.72E-03	7.15E-03	1.15E-02	1.15E-01
TNMHC	2.36E-01	2.36E-01	2.36E-01	2.38E-02	2.95E-03	3.69E-03	5.95E-03	5.95E-02
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	6.24E-06	6.24E-06	6.24E-06	6.28E-07	7.79E-08	9.74E-08	1.57E-07	1.57E-06
Xylenes (isomers and mixture)								
HMX				1.16E-05			2.89E-06	4.59E-05
RDX				4.34E-05			1.08E-05	5.23E-05
2,4,6-Trinitrotoluene				3.12E-05			7.81E-06	1.17E-04
2,4-Dinitrotoluene	3.12E-03	3.12E-03	3.12E-03		3.90E-05	4.87E-05		
2,6-Dinitrotoluene	3.12E-03	3.12E-03	3.12E-03		3.90E-05	4.87E-05		
Nitroglycerin	2.50E-02	2.50E-02	2.50E-02		3.12E-04	3.90E-04		
Nitroguanidine	2.98E-02	2.98E-02	2.98E-02	6.60E-06	3.72E-04	4.64E-04	1.65E-06	
Tetryl				1.16E-05			2.89E-06	4.59E-05
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	3.74E-03	3.74E-03	3.74E-03		4.67E-05	5.84E-05		
Diethylphthalate								
Aluminum	2.22E-02	2.22E-02	2.22E-02	6.47E-01	2.77E-04	3.47E-04	1.62E-01	5.00E+00
Antimony								
Barium	1.35E-01	1.35E-01	1.35E-01	6.60E-03	1.69E-03	2.11E-03	1.65E-03	
Chromium +								
Iron								
Lead				1.31E-02			3.28E-03	

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Nickel								
Silicon								
Tin	1.37E-01	1.37E-01	1.37E-01	6.66E-03	1.71E-03	2.13E-03	1.67E-03	
Zirconium								
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	1.09E-07	8.20E-08	1.09E-05	9.19E-07	2.76E-06	6.90E-05	
1,3-Butadiene						2.44E-02	
1,3,5-Trinitrobenzene	6.63E-08	4.97E-08	6.63E-06	5.57E-07	1.67E-06	6.66E-04	
1,4-Dichlorobenzene						4.72E-04	
1,6-Dinitropyrene	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
2-Methyl naphthalene						2.88E-03	
2-Methylphenol						1.35E-03	
2-Naphthylamine	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
2-Nitronaphthalene	3.67E-07	2.76E-07	3.67E-05	3.09E-06	9.26E-06	1.69E-04	
2-Nitrophenol	2.74E-06	2.06E-06	2.74E-04	2.30E-05	6.91E-05		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
4-Nitrophenol						1.54E-03	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Acenaphthylene						7.22E-04	
Acetophenone						2.98E-04	
alpha,alpha-Dimethylphenethylamine						1.67E-03	
Ammonia	1.57E-04	1.18E-04	1.57E-02	1.32E-03	3.96E-03	4.93E-01	
Anthracene						3.47E-04	
Aromatics (VOs, including benzene)						3.11E+00	
Benzene	7.60E-05	5.70E-05	7.60E-03	6.39E-04	1.92E-03	4.04E-01	
Benzo[a]pyrene	2.95E-06	2.21E-06	2.95E-04	2.47E-05	7.42E-05	2.34E-04	
Benzo[b]fluoranthene						5.89E-04	
Benz[c]acridine	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Benzyl alcohol						2.10E-04	
Benzo[k]fluoranthene						4.71E-04	
Benz[a]anthracene	5.15E-07	3.86E-07	5.15E-05	4.32E-06	1.30E-05	1.28E-04	
Butyl benzyl phthalate						1.41E-03	
Carbon monoxide	4.82E-03	3.62E-03	4.82E-01	4.05E-02	1.22E-01	8.70E+01	
Chrysene						3.89E-04	
Dibenzofurans	3.78E-04	2.83E-04	3.78E-02	3.17E-03	9.51E-03	8.80E-04	
Dibenz[a,h]anthracene	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06	7.27E-04	
Diethylenetriamine	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Dimethyl phthalate						5.76E-04	
Di-n-octyl phthalate						5.66E-03	
Di-n-propyladipate	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Dioctylsebacate	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Di(2-ethylhexyl)phthalate						4.45E-03	
Ethyl benzene						4.02E-02	
Fluoranthene						1.26E-03	
Fluorene						4.99E-04	
Hexane						3.15E-02	
Hydrogen cyanide	1.57E-04	1.18E-04	1.57E-02	1.32E-03	3.96E-03	5.87E+00	

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Isophoronedi-isocyanate	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Methane	3.05E-02	2.29E-02	3.05E+00	2.56E-01	7.69E-01	5.23E+00	
Naphthalene	7.57E-06	5.68E-06	7.57E-04	6.36E-05	1.91E-04	1.18E-02	
Nitric oxide	2.79E-02	2.09E-02	2.79E+00	2.34E-01	7.02E-01	8.47E+00	
Nitrogen dioxide	9.26E-03	6.95E-03	9.26E-01	7.78E-02	2.33E-01	3.45E+00	
N-Nitrosodiethylamine						2.03E-04	
N-Nitrosodiphenylamine	4.79E-06	3.59E-06	4.79E-04	4.02E-05	1.21E-04	1.78E-03	
Olefins (VOs)						2.05E+00	
Parafins (VOs)						1.75E-01	
Particulates (PM-10)	1.25E-01	9.36E-02	1.25E+01	1.05E+00	3.14E+00	6.76E+02	1.26E+01
Phenanthrene						1.82E-03	
Phenyldiisodecylphosphite	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Phenol	3.51E-05	2.63E-05	3.51E-03	2.95E-04	8.85E-04	6.50E-03	
Picric acid						8.45E-05	
Pyrene	1.10E-06	8.24E-07	1.10E-04	9.23E-06	2.77E-05	1.01E-03	
Resorcinol	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Salicylic Acid	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Styrene						1.75E+00	
Sulfur dioxide	5.77E-03	4.32E-03	5.77E-01	4.84E-02	1.45E-01	3.77E-01	
TNMHC	2.98E-03	2.23E-03	2.98E-01	2.50E-02	7.50E-02	3.71E+00	
TO-12 (TOT.ORGANICS,C2-C15)						8.41E+00	
Toluene						2.63E-01	
Triacetin	7.85E-08	5.89E-08	7.85E-06	6.60E-07	1.98E-06		
Xylenes (isomers and mixture)						2.26E-01	
HMX	2.29E-06	1.56E-07				2.37E-01	5.40E-07
RDX	2.62E-06	8.66E-05	2.27E-04	6.93E-05	2.08E-04	4.06E-01	7.95E-06
2,4,6-Trinitrotoluene	5.85E-06	8.42E-06		1.72E-05	5.15E-05	2.91E-02	9.45E-06
2,4-Dinitrotoluene		3.12E-05	1.08E-05			8.79E-03	6.11E-07
2,6-Dinitrotoluene		3.12E-05	1.08E-05			6.93E-03	
Nitroglycerin		1.83E-05	8.01E-05			3.19E-03	
Nitroguanidine			3.71E-05			3.11E-03	
Tetryl	2.29E-06	1.94E-06				6.37E-04	
Diphenylamine						3.89E-04	
2-Nitrodiphenylamine						4.90E-04	
Dibutylphthalate		6.77E-06	3.92E-06			6.42E-02	
Diethylphthalate		2.95E-08				9.29E-04	
Aluminum	2.50E-01	1.47E-01	1.31E+00			1.91E+01	
Antimony		1.13E-03				6.05E-02	
Barium		2.86E-02				2.47E+00	4.37E-04
Chromium $^{+}$		6.54E-04				5.02E-01	2.63E-04
Iron		1.47E-02	6.11E-02			9.92E-03	
Lead		1.57E-01	1.10E-01			4.63E+00	1.41E-03

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Nickel		1.08E-02				9.56E-03	
Silicon		5.58E-02					
Tin		9.07E-03				5.04E-01	
Zirconium		1.50E-02				6.37E-03	
Aluminum						6.52E+01	
Copper						1.15E+02	
Manganese						1.94E+01	
Zinc (Casing)						1.50E+01	
Fiberglass						3.26E+01	
Plastic						3.26E+01	
Iron						2.98E+03	
							8.92E-04
+ Chromium consists of 90% trivalent chromium							6.10E-03
and 10% hexavalent chromium.							2.52E-07
							9.06E-07

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	5.22E-06	1.74E-06	5.22E-06	5.25E-07	3.25E-08	4.07E-08	1.31E-07	1.31E-06
1,3-Butadiene								
1,3,5-Trinitrobenzene	3.16E-06	1.05E-06	3.16E-06	3.18E-07	1.97E-08	2.47E-08	7.96E-08	7.96E-07
1,4-Dichlorobenzene								
1,6-Dinitropyrene	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
2-Nitronaphthalene	1.75E-05	5.84E-06	1.75E-05	1.76E-06	1.09E-07	1.37E-07	4.41E-07	4.41E-06
2-Nitrophenol	1.31E-04	4.36E-05	1.31E-04	1.32E-05	8.16E-07	1.02E-06	3.29E-06	3.29E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	7.49E-03	2.50E-03	7.49E-03	7.54E-04	4.67E-05	5.84E-05	1.89E-04	1.89E-03
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	3.62E-03	1.21E-03	3.62E-03	3.65E-04	2.26E-05	2.83E-05	9.12E-05	9.12E-04
Benzo[a]pyrene	1.40E-04	4.68E-05	1.40E-04	1.41E-05	8.76E-07	1.10E-06	3.53E-06	3.53E-05
Benzo[b]fluoranthene								
Benz[c]acridine	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	2.45E-05	8.18E-06	2.45E-05	2.47E-06	1.53E-07	1.92E-07	6.18E-07	6.18E-06
Butyl benzyl phthalate								
Carbon monoxide	2.30E-01	7.66E-02	2.30E-01	2.31E-02	1.43E-03	1.79E-03	5.79E-03	5.79E-02
Chrysene								
Dibenzofurans	1.80E-02	6.00E-03	1.80E-02	1.81E-03	1.12E-04	1.40E-04	4.53E-04	4.53E-03
Dibenz[a,h]anthracene	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Diethylenetriamine	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Dioctylsebacate	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	7.49E-03	2.50E-03	7.49E-03	7.54E-04	4.67E-05	5.84E-05	1.89E-04	1.89E-03

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Isophoronedi-isocyanate	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Methane	1.45E+00	4.85E-01	1.45E+00	1.46E-01	9.08E-03	1.13E-02	3.66E-02	3.66E-01
Naphthalene	3.61E-04	1.20E-04	3.61E-04	3.63E-05	2.25E-06	2.82E-06	9.09E-06	9.09E-05
Nitric oxide	1.33E+00	4.43E-01	1.33E+00	1.34E-01	8.29E-03	1.04E-02	3.34E-02	3.34E-01
Nitrogen dioxide	4.42E-01	1.47E-01	4.42E-01	4.45E-02	2.76E-03	3.45E-03	1.11E-02	1.11E-01
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	2.28E-04	7.61E-05	2.28E-04	2.30E-05	1.43E-06	1.78E-06	5.75E-06	5.75E-05
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	5.95E+00	1.98E+00	5.95E+00	5.99E-01	3.71E-02	4.64E-02	1.50E-01	1.50E+00
Phenanthrene								
Phenyldiisodecylphosphite	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Phenol	1.67E-03	5.58E-04	1.67E-03	1.69E-04	1.04E-05	1.31E-05	4.21E-05	4.21E-04
Picric acid								
Pyrene	5.24E-05	1.75E-05	5.24E-05	5.27E-06	3.27E-07	4.09E-07	1.32E-06	1.32E-05
Resorcinol	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Salicylic Acid	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Styrene								
Sulfur dioxide	2.75E-01	9.16E-02	2.75E-01	2.77E-02	1.72E-03	2.14E-03	6.92E-03	6.92E-02
TNMHC	1.42E-01	4.73E-02	1.42E-01	1.43E-02	8.85E-04	1.11E-03	3.57E-03	3.57E-02
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	3.74E-06	1.25E-06	3.74E-06	3.77E-07	2.34E-08	2.92E-08	9.43E-08	9.43E-07
Xylenes (isomers and mixture)								
HMX				6.94E-06			1.73E-06	2.75E-05
RDX				2.60E-05			6.50E-06	3.14E-05
2,4,6-Trinitrotoluene				1.87E-05			4.68E-06	7.02E-05
2,4-Dinitrotoluene	1.87E-03	6.24E-04	1.87E-03		1.17E-05	1.46E-05		
2,6-Dinitrotoluene	1.87E-03	6.24E-04	1.87E-03		1.17E-05	1.46E-05		
Nitroglycerin	1.50E-02	4.99E-03	1.50E-02		9.35E-05	1.17E-04		
Nitroguanidine	1.79E-02	5.95E-03	1.79E-02	3.96E-06	1.11E-04	1.39E-04	9.90E-07	
Tetryl				6.94E-06			1.73E-06	2.75E-05
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	2.25E-03	7.49E-04	2.25E-03		1.40E-05	1.75E-05		
Diethylphthalate								
Aluminum	1.33E-02	4.44E-03	1.33E-02	3.88E-01	8.32E-05	1.04E-04	9.71E-02	3.00E+00
Antimony								
Barium	8.13E-02	2.71E-02	8.13E-02	3.96E-03	5.07E-04	6.34E-04	9.90E-04	
Chromium +								
Iron								
Lead				7.88E-03			1.97E-03	

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Nickel								
Silicon								
Tin	8.20E-02	2.73E-02	8.20E-02	4.00E-03	5.12E-04	6.40E-04	9.99E-04	
Zirconium								
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	9.84E-08	7.38E-08	9.84E-06	8.27E-07	2.48E-06	2.07E-05	
1,3-Butadiene						7.32E-03	
1,3,5-Trinitrobenzene	5.97E-08	4.48E-08	5.97E-06	5.01E-07	1.50E-06	2.00E-04	
1,4-Dichlorobenzene						1.41E-04	
1,6-Dinitropyrene	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
2-Methyl naphthalene						8.63E-04	
2-Methylphenol						4.05E-04	
2-Naphthylamine	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
2-Nitronaphthalene	3.31E-07	2.48E-07	3.31E-05	2.78E-06	8.33E-06	5.06E-05	
2-Nitrophenol	2.47E-06	1.85E-06	2.47E-04	2.07E-05	6.22E-05		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
4-Nitrophenol						4.62E-04	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Acenaphthylene						2.17E-04	
Acetophenone						8.93E-05	
alpha,alpha-Dimethylphenethylamine						5.02E-04	
Ammonia	1.41E-04	1.06E-04	1.41E-02	1.19E-03	3.56E-03	1.48E-01	
Anthracene						1.04E-04	
Aromatics (VOs, including benzene)						9.34E-01	
Benzene	6.84E-05	5.13E-05	6.84E-03	5.75E-04	1.72E-03	1.21E-01	
Benzo[a]pyrene	2.65E-06	1.99E-06	2.65E-04	2.23E-05	6.68E-05	7.03E-05	
Benzo[b]fluoranthene						1.77E-04	
Benz[c]acridine	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Benzyl alcohol						6.31E-05	
Benzo[k]fluoranthene						1.41E-04	
Benz[a]anthracene	4.63E-07	3.48E-07	4.63E-05	3.89E-06	1.17E-05	3.83E-05	
Butyl benzyl phthalate						4.24E-04	
Carbon monoxide	4.34E-03	3.26E-03	4.34E-01	3.65E-02	1.09E-01	2.61E+01	
Chrysene						1.17E-04	
Dibenzofurans	3.40E-04	2.55E-04	3.40E-02	2.85E-03	8.56E-03	2.64E-04	
Dibenz[a,h]anthracene	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06	2.18E-04	
Diethylenetriamine	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Dimethyl phthalate						1.73E-04	
Di-n-octyl phthalate						1.70E-03	
Di-n-propyladipate	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Dioctylsebacate	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Di(2-ethylhexyl)phthalate						1.33E-03	
Ethyl benzene						1.21E-02	
Fluoranthene						3.78E-04	
Fluorene						1.50E-04	
Hexane						9.45E-03	
Hydrogen cyanide	1.41E-04	1.06E-04	1.41E-02	1.19E-03	3.56E-03	1.76E+00	

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Isophoronedi-isocyanate	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Methane	2.75E-02	2.06E-02	2.75E+00	2.31E-01	6.92E-01	1.57E+00	
Naphthalene	6.82E-06	5.11E-06	6.82E-04	5.72E-05	1.72E-04	3.53E-03	
Nitric oxide	2.51E-02	1.88E-02	2.51E+00	2.11E-01	6.32E-01	2.54E+00	
Nitrogen dioxide	8.34E-03	6.25E-03	8.34E-01	7.00E-02	2.10E-01	1.04E+00	
N-Nitrosodiethylamine						6.08E-05	
N-Nitrosodiphenylamine	4.31E-06	3.23E-06	4.31E-04	3.62E-05	1.09E-04	5.34E-04	
Olefins (VOs)						6.14E-01	
Parafins (VOs)						5.24E-02	
Particulates (PM-10)	1.12E-01	8.42E-02	1.12E+01	9.43E-01	2.83E+00	2.03E+02	1.13E+01
Phenanthrene						5.45E-04	
Phenyldiisodecylphosphite	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Phenol	3.16E-05	2.37E-05	3.16E-03	2.65E-04	7.96E-04	1.95E-03	
Picric acid						2.53E-05	
Pyrene	9.89E-07	7.41E-07	9.89E-05	8.30E-06	2.49E-05	3.04E-04	
Resorcinol	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Salicylic Acid	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Styrene						5.24E-01	
Sulfur dioxide	5.19E-03	3.89E-03	5.19E-01	4.36E-02	1.31E-01	1.13E-01	
TNMHC	2.68E-03	2.01E-03	2.68E-01	2.25E-02	6.75E-02	1.11E+00	
TO-12 (TOT.ORGANICS,C2-C15)						2.52E+00	
Toluene						7.88E-02	
Triacetin	7.07E-08	5.30E-08	7.07E-06	5.94E-07	1.78E-06		
Xylenes (isomers and mixture)						6.78E-02	
HMX	2.06E-06	1.40E-07				7.10E-02	4.86E-07
RDX	2.35E-06	7.79E-05	2.04E-04	6.23E-05	1.87E-04	1.22E-01	7.16E-06
2,4,6-Trinitrotoluene	5.27E-06	7.58E-06		1.54E-05	4.63E-05	8.72E-03	8.50E-06
2,4-Dinitrotoluene		2.81E-05	9.68E-06			2.64E-03	5.50E-07
2,6-Dinitrotoluene		2.81E-05	9.68E-06			2.08E-03	
Nitroglycerin		1.65E-05	7.21E-05			9.58E-04	
Nitroguanidine			3.34E-05			9.33E-04	
Tetryl	2.06E-06	1.74E-06				1.91E-04	
Diphenylamine						1.17E-04	
2-Nitrodiphenylamine						1.47E-04	
Dibutylphthalate		6.10E-06	3.53E-06			1.93E-02	
Diethylphthalate		2.65E-08				2.79E-04	
Aluminum	2.25E-01	1.32E-01	1.18E+00			5.73E+00	
Antimony		1.01E-03				1.81E-02	
Barium		2.58E-02				7.40E-01	3.93E-04
Chromium +		5.88E-04				1.51E-01	2.37E-04
Iron		1.32E-02	5.50E-02			2.98E-03	
Lead		1.42E-01	9.90E-02			1.39E+00	1.27E-03

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Nickel		9.70E-03				2.87E-03	
Silicon		5.02E-02					
Tin		8.16E-03				1.51E-01	
Zirconium		1.35E-02				1.91E-03	
Aluminum						1.96E+01	
Copper						3.44E+01	
Manganese						5.82E+00	
Zinc (Casing)						4.49E+00	
Fiberglass						9.78E+00	
Plastic						9.78E+00	
Iron						8.94E+02	
							8.03E-04
+ Chromium consists of 90% trivalent chromium							5.49E-03
and 10% hexavalent chromium.							2.26E-07
							8.15E-07

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	2.28E-06	7.61E-07	2.28E-06	3.06E-07	1.90E-08	2.37E-08	7.66E-08	3.83E-07
1,3-Butadiene								
1,3,5-Trinitrobenzene	1.38E-06	4.61E-07	1.38E-06	1.86E-07	1.15E-08	1.44E-08	4.64E-08	2.32E-07
1,4-Dichlorobenzene								
1,6-Dinitropyrene	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
2-Nitronaphthalene	7.66E-06	2.55E-06	7.66E-06	1.03E-06	6.38E-08	7.97E-08	2.57E-07	1.29E-06
2-Nitrophenol	5.72E-05	1.91E-05	5.72E-05	7.68E-06	4.76E-07	5.95E-07	1.92E-06	9.60E-06
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	3.28E-03	1.09E-03	3.28E-03	4.40E-04	2.73E-05	3.41E-05	1.10E-04	5.50E-04
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	1.59E-03	5.29E-04	1.59E-03	2.13E-04	1.32E-05	1.65E-05	5.32E-05	2.66E-04
Benzo[a]pyrene	6.14E-05	2.05E-05	6.14E-05	8.25E-06	5.11E-07	6.39E-07	2.06E-06	1.03E-05
Benzo[b]fluoranthene								
Benz[c]acridine	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	1.07E-05	3.58E-06	1.07E-05	1.44E-06	8.94E-08	1.12E-07	3.60E-07	1.80E-06
Butyl benzyl phthalate								
Carbon monoxide	1.01E-01	3.35E-02	1.01E-01	1.35E-02	8.37E-04	1.05E-03	3.38E-03	1.69E-02
Chrysene								
Dibenzofurans	7.88E-03	2.63E-03	7.88E-03	1.06E-03	6.55E-05	8.19E-05	2.64E-04	1.32E-03
Dibenz[a,h]anthracene	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Diethylenetriamine	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Dioctylsebacate	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	3.28E-03	1.09E-03	3.28E-03	4.40E-04	2.73E-05	3.41E-05	1.10E-04	5.50E-04

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Isophoronedi-isocyanate	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Methane	6.36E-01	2.12E-01	6.36E-01	8.54E-02	5.30E-03	6.62E-03	2.14E-02	1.07E-01
Naphthalene	1.58E-04	5.27E-05	1.58E-04	2.12E-05	1.31E-06	1.64E-06	5.30E-06	2.65E-05
Nitric oxide	5.81E-01	1.94E-01	5.81E-01	7.80E-02	4.84E-03	6.05E-03	1.95E-02	9.76E-02
Nitrogen dioxide	1.93E-01	6.44E-02	1.93E-01	2.59E-02	1.61E-03	2.01E-03	6.48E-03	3.24E-02
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	9.99E-05	3.33E-05	9.99E-05	1.34E-05	8.32E-07	1.04E-06	3.35E-06	1.68E-05
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	2.60E+00	8.68E-01	2.60E+00	3.49E-01	2.17E-02	2.71E-02	8.74E-02	4.37E-01
Phenanthrene								
Phenyldiisodecylphosphite	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Phenol	7.33E-04	2.44E-04	7.33E-04	9.83E-05	6.10E-06	7.62E-06	2.46E-05	1.23E-04
Picric acid								
Pyrene	2.29E-05	7.64E-06	2.29E-05	3.08E-06	1.91E-07	2.38E-07	7.69E-07	3.84E-06
Resorcinol	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Salicylic Acid	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Styrene								
Sulfur dioxide	1.20E-01	4.01E-02	1.20E-01	1.61E-02	1.00E-03	1.25E-03	4.04E-03	2.02E-02
TNMHC	6.21E-02	2.07E-02	6.21E-02	8.33E-03	5.16E-04	6.45E-04	2.08E-03	1.04E-02
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	1.64E-06	5.46E-07	1.64E-06	2.20E-07	1.36E-08	1.70E-08	5.50E-08	2.75E-07
Xylenes (isomers and mixture)								
HMX				4.05E-06			1.01E-06	8.03E-06
RDX				1.52E-05			3.79E-06	9.15E-06
2,4,6-Trinitrotoluene				1.09E-05			2.73E-06	2.05E-05
2,4-Dinitrotoluene	8.19E-04	2.73E-04	8.19E-04		6.82E-06	8.52E-06		
2,6-Dinitrotoluene	8.19E-04	2.73E-04	8.19E-04		6.82E-06	8.52E-06		
Nitroglycerin	6.55E-03	2.18E-03	6.55E-03		5.45E-05	6.82E-05		
Nitroguanidine	7.82E-03	2.61E-03	7.82E-03	2.31E-06	6.50E-05	8.13E-05	5.77E-07	
Tetryl				4.05E-06			1.01E-06	8.03E-06
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	9.83E-04	3.28E-04	9.83E-04		8.18E-06	1.02E-05		
Diethylphthalate								
Aluminum	5.83E-03	1.94E-03	5.83E-03	2.27E-01	4.85E-05	6.07E-05	5.66E-02	8.74E-01
Antimony								
Barium	3.56E-02	1.19E-02	3.56E-02	2.31E-03	2.96E-04	3.70E-04	5.77E-04	
Chromium +								
Iron								
Lead				4.60E-03			1.15E-03	

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Nickel								
Silicon								
Tin	3.59E-02	1.20E-02	3.59E-02	2.33E-03	2.99E-04	3.73E-04	5.83E-04	
Zirconium								
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	3.83E-08	5.74E-08	7.66E-06	6.43E-07	9.65E-07	6.04E-06	
1,3-Butadiene						2.13E-03	
1,3,5-Trinitrobenzene	2.32E-08	3.48E-08	4.64E-06	3.90E-07	5.85E-07	5.83E-05	
1,4-Dichlorobenzene						4.13E-05	
1,6-Dinitropyrene	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
2-Methyl naphthalene						2.52E-04	
2-Methylphenol						1.18E-04	
2-Naphthylamine	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
2-Nitronaphthalene	1.29E-07	1.93E-07	2.57E-05	2.16E-06	3.24E-06	1.48E-05	
2-Nitrophenol	9.60E-07	1.44E-06	1.92E-04	1.61E-05	2.42E-05		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
4-Nitrophenol						1.35E-04	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Acenaphthylene						6.31E-05	
Acetophenone						2.61E-05	
alpha,alpha-Dimethylphenethylamine						1.46E-04	
Ammonia	5.50E-05	8.25E-05	1.10E-02	9.24E-04	1.39E-03	4.32E-02	
Anthracene						3.04E-05	
Aromatics (VOs, including benzene)						2.72E-01	
Benzene	2.66E-05	3.99E-05	5.32E-03	4.47E-04	6.70E-04	3.54E-02	
Benzo[a]pyrene	1.03E-06	1.55E-06	2.06E-04	1.73E-05	2.60E-05	2.05E-05	
Benzo[b]fluoranthene						5.16E-05	
Benz[c]acridine	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Benzyl alcohol						1.84E-05	
Benzo[k]fluoranthene						4.13E-05	
Benz[a]anthracene	1.80E-07	2.70E-07	3.60E-05	3.03E-06	4.54E-06	1.12E-05	
Butyl benzyl phthalate						1.24E-04	
Carbon monoxide	1.69E-03	2.53E-03	3.38E-01	2.84E-02	4.25E-02	7.61E+00	
Chrysene						3.40E-05	
Dibenzofurans	1.32E-04	1.98E-04	2.64E-02	2.22E-03	3.33E-03	7.70E-05	
Dibenz[a,h]anthracene	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07	6.36E-05	
Diethylenetriamine	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Dimethyl phthalate						5.04E-05	
Di-n-octyl phthalate						4.95E-04	
Di-n-propyladipate	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Dioctylsebacate	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Di(2-ethylhexyl)phthalate						3.89E-04	
Ethyl benzene						3.52E-03	
Fluoranthene						1.10E-04	
Fluorene						4.37E-05	
Hexane						2.76E-03	
Hydrogen cyanide	5.50E-05	8.25E-05	1.10E-02	9.24E-04	1.39E-03	5.14E-01	

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Isophoronedi-isocyanate	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Methane	1.07E-02	1.60E-02	2.14E+00	1.79E-01	2.69E-01	4.57E-01	
Naphthalene	2.65E-06	3.98E-06	5.30E-04	4.45E-05	6.68E-05	1.03E-03	
Nitric oxide	9.76E-03	1.46E-02	1.95E+00	1.64E-01	2.46E-01	7.42E-01	
Nitrogen dioxide	3.24E-03	4.86E-03	6.48E-01	5.45E-02	8.17E-02	3.02E-01	
N-Nitrosodiethylamine						1.77E-05	
N-Nitrosodiphenylamine	1.68E-06	2.52E-06	3.35E-04	2.82E-05	4.23E-05	1.56E-04	
Olefins (VOs)						1.79E-01	
Parafins (VOs)						1.53E-02	
Particulates (PM-10)	4.37E-02	6.55E-02	8.74E+00	7.34E-01	1.10E+00	5.91E+01	3.70E+00
Phenanthrene						1.59E-04	
Phenyldiisodecylphosphite	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Phenol	1.23E-05	1.84E-05	2.46E-03	2.06E-04	3.10E-04	5.69E-04	
Picric acid						7.39E-06	
Pyrene	3.84E-07	5.77E-07	7.69E-05	6.46E-06	9.69E-06	8.87E-05	
Resorcinol	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Salicylic Acid	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Styrene						1.53E-01	
Sulfur dioxide	2.02E-03	3.03E-03	4.04E-01	3.39E-02	5.09E-02	3.30E-02	
TNMHC	1.04E-03	1.56E-03	2.08E-01	1.75E-02	2.62E-02	3.25E-01	
TO-12 (TOT.ORGANICS,C2-C15)						7.36E-01	
Toluene						2.30E-02	
Triacetin	2.75E-08	4.12E-08	5.50E-06	4.62E-07	6.93E-07		
Xylenes (isomers and mixture)						1.98E-02	
HMX	8.03E-07	1.09E-07				2.07E-02	1.59E-07
RDX	9.15E-07	6.06E-05	1.59E-04	4.85E-05	7.27E-05	3.55E-02	2.34E-06
2,4,6-Trinitrotoluene	2.05E-06	5.90E-06		1.20E-05	1.80E-05	2.54E-03	2.78E-06
2,4-Dinitrotoluene		2.19E-05	7.53E-06			7.69E-04	1.80E-07
2,6-Dinitrotoluene		2.19E-05	7.53E-06			6.06E-04	
Nitroglycerin		1.28E-05	5.61E-05			2.79E-04	
Nitroguanidine			2.60E-05			2.72E-04	
Tetryl	8.03E-07	1.36E-06				5.57E-05	
Diphenylamine						3.40E-05	
2-Nitrodiphenylamine						4.29E-05	
Dibutylphthalate		4.74E-06	2.74E-06			5.62E-03	
Diethylphthalate		2.06E-08				8.13E-05	
Aluminum	8.74E-02	1.03E-01	9.18E-01			1.67E+00	
Antimony		7.88E-04				5.29E-03	
Barium		2.00E-02				2.16E-01	1.29E-04
Chromium +		4.58E-04				4.39E-02	7.74E-05
Iron		1.03E-02	4.28E-02			8.68E-04	
Lead		1.10E-01	7.70E-02			4.05E-01	4.15E-04

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Nickel		7.55E-03				8.37E-04	
Silicon		3.91E-02					
Tin		6.35E-03				4.41E-02	
Zirconium		1.05E-02				5.57E-04	
Aluminum						5.71E+00	
Copper						1.00E+01	
Manganese						1.70E+00	
Zinc (Casing)						1.31E+00	
Fiberglass						2.85E+00	
Plastic						2.85E+00	
Iron						2.61E+02	
							2.63E-04
+ Chromium consists of 90% trivalent chromium							1.70E-03
and 10% hexavalent chromium.							7.41E-08
							2.67E-07

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	7.24E-07	2.41E-07	7.24E-07	5.83E-08	3.62E-09	4.52E-09	1.46E-08	7.29E-08
1,3-Butadiene								
1,3,5-Trinitrobenzene	4.39E-07	1.46E-07	4.39E-07	3.54E-08	2.19E-09	2.74E-09	8.84E-09	4.42E-08
1,4-Dichlorobenzene								
1,6-Dinitropyrene	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
2-Nitronaphthalene	2.43E-06	8.11E-07	2.43E-06	1.96E-07	1.21E-08	1.52E-08	4.90E-08	2.45E-07
2-Nitrophenol	1.82E-05	6.06E-06	1.82E-05	1.46E-06	9.07E-08	1.13E-07	3.66E-07	1.83E-06
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	1.04E-03	3.47E-04	1.04E-03	8.38E-05	5.19E-06	6.49E-06	2.09E-05	1.05E-04
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	5.03E-04	1.68E-04	5.03E-04	4.05E-05	2.51E-06	3.14E-06	1.01E-05	5.07E-05
Benzo[a]pyrene	1.95E-05	6.50E-06	1.95E-05	1.57E-06	9.74E-08	1.22E-07	3.93E-07	1.96E-06
Benzo[b]fluoranthene								
Benz[c]acridine	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	3.41E-06	1.14E-06	3.41E-06	2.75E-07	1.70E-08	2.13E-08	6.87E-08	3.43E-07
Butyl benzyl phthalate								
Carbon monoxide	3.19E-02	1.06E-02	3.19E-02	2.57E-03	1.59E-04	1.99E-04	6.43E-04	3.21E-03
Chrysene								
Dibenzofurans	2.50E-03	8.33E-04	2.50E-03	2.01E-04	1.25E-05	1.56E-05	5.03E-05	2.52E-04
Dibenz[a,h]anthracene	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Diethylenetriamine	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Dioctylsebacate	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	1.04E-03	3.47E-04	1.04E-03	8.38E-05	5.19E-06	6.49E-06	2.09E-05	1.05E-04

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Isophoronedi-isocyanate	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Methane	2.02E-01	6.73E-02	2.02E-01	1.63E-02	1.01E-03	1.26E-03	4.07E-03	2.03E-02
Naphthalene	5.01E-05	1.67E-05	5.01E-05	4.04E-06	2.50E-07	3.13E-07	1.01E-06	5.05E-06
Nitric oxide	1.85E-01	6.15E-02	1.85E-01	1.49E-02	9.22E-04	1.15E-03	3.72E-03	1.86E-02
Nitrogen dioxide	6.13E-02	2.04E-02	6.13E-02	4.94E-03	3.06E-04	3.83E-04	1.24E-03	6.18E-03
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	3.17E-05	1.06E-05	3.17E-05	2.56E-06	1.58E-07	1.98E-07	6.39E-07	3.19E-06
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	8.27E-01	2.76E-01	8.27E-01	6.66E-02	4.13E-03	5.16E-03	1.66E-02	8.32E-02
Phenanthrene								
Phenyldiisodecylphosphite	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Phenol	2.33E-04	7.75E-05	2.33E-04	1.87E-05	1.16E-06	1.45E-06	4.68E-06	2.34E-05
Picric acid								
Pyrene	7.27E-06	2.42E-06	7.27E-06	5.86E-07	3.63E-08	4.54E-08	1.46E-07	7.32E-07
Resorcinol	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Salicylic Acid	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Styrene								
Sulfur dioxide	3.82E-02	1.27E-02	3.82E-02	3.08E-03	1.91E-04	2.38E-04	7.69E-04	3.84E-03
TNMHC	1.97E-02	6.57E-03	1.97E-02	1.59E-03	9.84E-05	1.23E-04	3.97E-04	1.98E-03
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	5.20E-07	1.73E-07	5.20E-07	4.19E-08	2.60E-09	3.25E-09	1.05E-08	5.24E-08
Xylenes (isomers and mixture)								
HMX				7.71E-07			1.93E-07	1.53E-06
RDX				2.89E-06			7.23E-07	1.74E-06
2,4,6-Trinitrotoluene				2.08E-06			5.20E-07	3.90E-06
2,4-Dinitrotoluene	2.60E-04	8.67E-05	2.60E-04		1.30E-06	1.62E-06		
2,6-Dinitrotoluene	2.60E-04	8.67E-05	2.60E-04		1.30E-06	1.62E-06		
Nitroglycerin	2.08E-03	6.94E-04	2.08E-03		1.04E-05	1.30E-05		
Nitroguanidine	2.48E-03	8.27E-04	2.48E-03	4.40E-07	1.24E-05	1.55E-05	1.10E-07	
Tetryl				7.71E-07			1.93E-07	1.53E-06
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	3.12E-04	1.04E-04	3.12E-04		1.56E-06	1.95E-06		
Diethylphthalate								
Aluminum	1.85E-03	6.17E-04	1.85E-03	4.31E-02	9.24E-06	1.16E-05	1.08E-02	1.67E-01
Antimony								
Barium	1.13E-02	3.76E-03	1.13E-02	4.40E-04	5.63E-05	7.04E-05	1.10E-04	
Chromium +								
Iron								
Lead				8.76E-04			2.19E-04	

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Nickel								
Silicon								
Tin	1.14E-02	3.80E-03	1.14E-02	4.44E-04	5.69E-05	7.11E-05	1.11E-04	
Zirconium								
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	7.29E-09	1.09E-08	1.82E-06	1.22E-07	1.84E-07	1.15E-06	
1,3-Butadiene						4.06E-04	
1,3,5-Trinitrobenzene	4.42E-09	6.63E-09	1.11E-06	7.43E-08	1.11E-07	1.11E-05	
1,4-Dichlorobenzene						7.86E-06	
1,6-Dinitropyrene	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
2-Methyl naphthalene						4.79E-05	
2-Methylphenol						2.25E-05	
2-Naphthylamine	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
2-Nitronaphthalene	2.45E-08	3.67E-08	6.12E-06	4.11E-07	6.17E-07	2.81E-06	
2-Nitrophenol	1.83E-07	2.74E-07	4.57E-05	3.07E-06	4.61E-06		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
4-Nitrophenol						2.57E-05	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Acenaphthylene						1.20E-05	
Acetophenone						4.96E-06	
alpha,alpha-Dimethylphenethylamine						2.79E-05	
Ammonia	1.05E-05	1.57E-05	2.62E-03	1.76E-04	2.64E-04	8.22E-03	
Anthracene						5.79E-06	
Aromatics (VOs, including benzene)						5.19E-02	
Benzene	5.07E-06	7.60E-06	1.27E-03	8.51E-05	1.28E-04	6.74E-03	
Benzo[a]pyrene	1.96E-07	2.95E-07	4.91E-05	3.30E-06	4.95E-06	3.90E-06	
Benzo[b]fluoranthene						9.82E-06	
Benz[c]acridine	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Benzyl alcohol						3.51E-06	
Benzo[k]fluoranthene						7.86E-06	
Benz[a]anthracene	3.43E-08	5.15E-08	8.58E-06	5.77E-07	8.65E-07	2.13E-06	
Butyl benzyl phthalate						2.36E-05	
Carbon monoxide	3.21E-04	4.82E-04	8.04E-02	5.40E-03	8.10E-03	1.45E+00	
Chrysene						6.48E-06	
Dibenzofurans	2.52E-05	3.78E-05	6.29E-03	4.23E-04	6.34E-04	1.47E-05	
Dibenz[a,h]anthracene	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07	1.21E-05	
Diethylenetriamine	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Dimethyl phthalate						9.60E-06	
Di-n-octyl phthalate						9.43E-05	
Di-n-propyladipate	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Dioctylsebacate	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Di(2-ethylhexyl)phthalate						7.41E-05	
Ethyl benzene						6.71E-04	
Fluoranthene						2.10E-05	
Fluorene						8.32E-06	
Hexane						5.25E-04	
Hydrogen cyanide	1.05E-05	1.57E-05	2.62E-03	1.76E-04	2.64E-04	9.79E-02	

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Isophoronedi-isocyanate	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Methane	2.03E-03	3.05E-03	5.08E-01	3.42E-02	5.12E-02	8.71E-02	
Naphthalene	5.05E-07	7.57E-07	1.26E-04	8.48E-06	1.27E-05	1.96E-04	
Nitric oxide	1.86E-03	2.79E-03	4.65E-01	3.12E-02	4.68E-02	1.41E-01	
Nitrogen dioxide	6.18E-04	9.26E-04	1.54E-01	1.04E-02	1.56E-02	5.76E-02	
N-Nitrosodiethylamine						3.38E-06	
N-Nitrosodiphenylamine	3.19E-07	4.79E-07	7.99E-05	5.37E-06	8.05E-06	2.97E-05	
Olefins (VOs)						3.41E-02	
Parafins (VOs)						2.91E-03	
Particulates (PM-10)	8.32E-03	1.25E-02	2.08E+00	1.40E-01	2.10E-01	1.13E+01	1.86E+00
Phenanthrene						3.03E-05	
Phenyldiisodecylphosphite	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Phenol	2.34E-06	3.51E-06	5.85E-04	3.93E-05	5.90E-05	1.08E-04	
Picric acid						1.41E-06	
Pyrene	7.32E-08	1.10E-07	1.83E-05	1.23E-06	1.85E-06	1.69E-05	
Resorcinol	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Salicylic Acid	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Styrene						2.91E-02	
Sulfur dioxide	3.84E-04	5.77E-04	9.61E-02	6.46E-03	9.69E-03	6.28E-03	
TNMHC	1.98E-04	2.98E-04	4.96E-02	3.33E-03	5.00E-03	6.18E-02	
TO-12 (TOT.ORGANICS,C2-C15)						1.40E-01	
Toluene						4.38E-03	
Triacetin	5.24E-09	7.85E-09	1.31E-06	8.80E-08	1.32E-07		
Xylenes (isomers and mixture)						3.77E-03	
HMX	1.53E-07	2.07E-08				3.94E-03	7.98E-08
RDX	1.74E-07	1.15E-05	3.78E-05	9.24E-06	1.39E-05	6.76E-03	1.18E-06
2,4,6-Trinitrotoluene	3.90E-07	1.12E-06		2.29E-06	3.43E-06	4.84E-04	1.40E-06
2,4-Dinitrotoluene		4.16E-06	1.79E-06			1.46E-04	9.04E-08
2,6-Dinitrotoluene		4.16E-06	1.79E-06			1.15E-04	
Nitroglycerin		2.44E-06	1.34E-05			5.32E-05	
Nitroguanidine			6.18E-06			5.18E-05	
Tetryl	1.53E-07	2.58E-07				1.06E-05	
Diphenylamine						6.48E-06	
2-Nitrodiphenylamine						8.17E-06	
Dibutylphthalate		9.03E-07	6.53E-07			1.07E-03	
Diethylphthalate		3.93E-09				1.55E-05	
Aluminum	1.67E-02	1.96E-02	2.19E-01			3.18E-01	
Antimony		1.50E-04				1.01E-03	
Barium		3.82E-03				4.11E-02	6.45E-05
Chromium +		8.72E-05				8.36E-03	3.89E-05
Iron		1.96E-03	1.02E-02			1.65E-04	
Lead		2.10E-02	1.83E-02			7.72E-02	2.08E-04

ENE Boundary: 24 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Nickel		1.44E-03				1.59E-04	
Silicon		7.44E-03					
Tin		1.21E-03				8.39E-03	
Zirconium		2.00E-03				1.06E-04	
Aluminum						1.09E+00	
Copper						1.91E+00	
Manganese						3.23E-01	
Zinc (Casing)						2.50E-01	
Fiberglass						5.43E-01	
Plastic						5.43E-01	
Iron						4.96E+01	
							1.32E-04
+ Chromium consists of 90% trivalent chromium							8.52E-04
and 10% hexavalent chromium.							3.72E-08
							1.34E-07

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
1,3-Butadiene								
1,3,5-Trinitrobenzene	5.37E-08	1.79E-08	5.37E-08	2.89E-09	1.61E-10	2.01E-10	6.48E-10	3.24E-09
1,4-Dichlorobenzene								
1,6-Dinitropyrene	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
2-Nitronaphthalene	2.79E-07	9.29E-08	2.79E-07	1.51E-08	8.36E-10	1.05E-09	3.37E-09	1.69E-08
2-Nitrophenol	1.70E-06	5.67E-07	1.70E-06	9.18E-08	5.10E-09	6.37E-09	2.06E-08	1.03E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	2.13E-04	7.08E-05	2.13E-04	1.15E-05	6.37E-07	7.97E-07	2.57E-06	1.29E-05
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	5.96E-05	1.98E-05	5.96E-05	3.22E-06	1.79E-07	2.23E-07	7.20E-07	3.60E-06
Benzo[a]pyrene	1.59E-06	5.28E-07	1.59E-06	8.56E-08	4.75E-09	5.94E-09	1.92E-08	9.59E-08
Benzo[b]fluoranthene								
Benz[c]acridine	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	3.47E-07	1.15E-07	3.47E-07	1.87E-08	1.04E-09	1.30E-09	4.19E-09	2.09E-08
Butyl benzyl phthalate								
Carbon monoxide	4.20E-03	1.40E-03	4.20E-03	2.26E-04	1.26E-05	1.57E-05	5.07E-05	2.53E-04
Chrysene								
Dibenzofurans	1.84E-04	6.11E-05	1.84E-04	9.91E-06	5.50E-07	6.88E-07	2.22E-06	1.11E-05
Dibenz[a,h]anthracene	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Diethylenetriamine	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Dioctylsebacate	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	2.13E-04	7.08E-05	2.13E-04	1.15E-05	6.37E-07	7.97E-07	2.57E-06	1.29E-05

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Isophoronedi-isocyanate	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Methane	1.57E-02	5.22E-03	1.57E-02	8.45E-04	4.69E-05	5.87E-05	1.89E-04	9.47E-04
Naphthalene	5.40E-06	1.80E-06	5.40E-06	2.91E-07	1.62E-08	2.02E-08	6.53E-08	3.26E-07
Nitric oxide	2.64E-02	8.77E-03	2.64E-02	1.42E-03	7.90E-05	9.87E-05	3.18E-04	1.59E-03
Nitrogen dioxide	7.96E-03	2.65E-03	7.96E-03	4.30E-04	2.39E-05	2.98E-05	9.62E-05	4.81E-04
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	2.43E-06	8.10E-07	2.43E-06	1.31E-07	7.29E-09	9.11E-09	2.94E-08	1.47E-07
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	1.13E-01	3.78E-02	1.13E-01	6.12E-03	3.40E-04	4.25E-04	1.37E-03	6.86E-03
Phenanthrene								
Phenyldiisodecylphosphite	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Phenol	2.46E-05	8.20E-06	2.46E-05	1.33E-06	7.38E-08	9.23E-08	2.98E-07	1.49E-06
Picric acid								
Pyrene	6.40E-07	2.13E-07	6.40E-07	3.45E-08	1.92E-09	2.40E-09	7.73E-09	3.87E-08
Resorcinol	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Salicylic Acid	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Styrene								
Sulfur dioxide	2.68E-03	8.92E-04	2.68E-03	1.45E-04	8.03E-06	1.00E-05	3.24E-05	1.62E-04
TNMHC	2.39E-03	7.94E-04	2.39E-03	1.29E-04	7.15E-06	8.93E-06	2.88E-05	1.44E-04
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	1.06E-07	3.54E-08	1.06E-07	5.74E-09	3.19E-10	3.98E-10	1.29E-09	6.43E-09
Xylenes (isomers and mixture)								
HMX				1.06E-07			2.37E-08	1.88E-07
RDX				3.96E-07			8.87E-08	2.14E-07
2,4,6-Trinitrotoluene				2.85E-07			6.39E-08	4.79E-07
2,4-Dinitrotoluene	5.32E-05	1.77E-05	5.32E-05		1.59E-07	1.99E-07		
2,6-Dinitrotoluene	5.32E-05	1.77E-05	5.32E-05		1.59E-07	1.99E-07		
Nitroglycerin	4.26E-04	1.42E-04	4.26E-04		1.27E-06	1.59E-06		
Nitroguanidine	5.08E-04	1.69E-04	5.08E-04	6.03E-08	1.52E-06	1.90E-06	1.35E-08	
Tetryl				1.06E-07			2.37E-08	1.88E-07
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	6.38E-05	2.12E-05	6.38E-05		1.91E-07	2.39E-07		
Diethylphthalate								
Aluminum	3.79E-04	1.26E-04	3.79E-04	5.91E-03	1.13E-06	1.42E-06	1.32E-03	2.04E-02
Antimony								
Barium	2.31E-03	7.69E-04	2.31E-03	6.03E-05	6.92E-06	8.65E-06	1.35E-05	
Chromium +								
Iron								
Lead				1.20E-04			2.69E-05	

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Nickel								
Silicon								
Tin	2.33E-03	7.76E-04	2.33E-03	6.08E-05	6.98E-06	8.72E-06	1.36E-05	
Zirconium								
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09	1.64E-07	
1,3-Butadiene						4.05E-05	
1,3,5-Trinitrobenzene	3.24E-10	4.86E-10	4.05E-08	1.94E-09	2.92E-09	1.13E-06	
1,4-Dichlorobenzene						1.60E-06	
1,6-Dinitropyrene	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
2-Methyl naphthalene						5.12E-06	
2-Methylphenol						3.80E-06	
2-Naphthylamine	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
2-Nitronaphthalene	1.69E-09	2.53E-09	2.11E-07	1.01E-08	1.52E-08	3.63E-07	
2-Nitrophenol	1.03E-08	1.54E-08	1.29E-06	6.17E-08	9.25E-08		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
4-Nitrophenol						1.08E-06	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Acenaphthylene						1.58E-06	
Acetophenone						9.50E-07	
alpha,alpha-Dimethylphenethylamine						6.11E-06	
Ammonia	1.29E-06	1.93E-06	1.61E-04	7.71E-06	1.16E-05	1.80E-03	
Anthracene						9.63E-07	
Aromatics (VOs, including benzene)						4.45E-03	
Benzene	3.60E-07	5.40E-07	4.50E-05	2.16E-06	3.24E-06	8.03E-04	
Benzo[a]pyrene	9.59E-09	1.44E-08	1.20E-06	5.75E-08	8.63E-08	5.06E-07	
Benzo[b]fluoranthene						7.41E-07	
Benz[c]acridine	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Benzyl alcohol						5.91E-07	
Benzo[k]fluoranthene						5.93E-07	
Benz[a]anthracene	2.09E-09	3.14E-09	2.62E-07	1.26E-08	1.88E-08	2.91E-07	
Butyl benzyl phthalate						3.17E-06	
Carbon monoxide	2.53E-05	3.80E-05	3.17E-03	1.52E-04	2.28E-04	2.40E-01	
Chrysene						1.42E-06	
Dibenzofurans	1.11E-06	1.66E-06	1.39E-04	6.66E-06	9.98E-06	1.51E-06	
Dibenz[a,h]anthracene	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09	2.65E-06	
Diethylenetriamine	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Dimethyl phthalate						1.48E-06	
Di-n-octyl phthalate						1.03E-05	
Di-n-propyladipate	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Dioctylsebacate	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Di(2-ethylhexyl)phthalate						1.19E-05	
Ethyl benzene						6.34E-05	
Fluoranthene						2.58E-06	
Fluorene						1.52E-06	
Hexane						4.96E-05	
Hydrogen cyanide	1.29E-06	1.93E-06	1.61E-04	7.71E-06	1.16E-05	1.40E-02	

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Isophoronedi-isocyanate	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Methane	9.47E-05	1.42E-04	1.18E-02	5.68E-04	8.52E-04	1.22E-02	
Naphthalene	3.26E-08	4.89E-08	4.08E-06	1.96E-07	2.94E-07	1.86E-05	
Nitric oxide	1.59E-04	2.39E-04	1.99E-02	9.55E-04	1.43E-03	1.51E-02	
Nitrogen dioxide	4.81E-05	7.22E-05	6.01E-03	2.89E-04	4.33E-04	8.25E-03	
N-Nitrosodiethylamine						7.41E-07	
N-Nitrosodiphenylamine	1.47E-08	2.21E-08	1.84E-06	8.82E-08	1.32E-07	2.56E-06	
Olefins (VOs)						4.09E-03	
Parafins (VOs)						5.24E-04	
Particulates (PM-10)	6.86E-04	1.03E-03	8.57E-02	4.11E-03	6.17E-03	1.48E+00	1.90E-02
Phenanthrene						3.33E-06	
Phenyldiisodecylphosphite	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Phenol	1.49E-07	2.23E-07	1.86E-05	8.93E-07	1.34E-06	1.13E-05	
Picric acid						3.09E-07	
Pyrene	3.87E-09	5.80E-09	4.83E-07	2.32E-08	3.48E-08	2.03E-06	
Resorcinol	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Salicylic Acid	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Styrene						2.64E-03	
Sulfur dioxide	1.62E-05	2.43E-05	2.02E-03	9.72E-05	1.46E-04	1.38E-03	
TNMHC	1.44E-05	2.16E-05	1.80E-03	8.65E-05	1.30E-04	9.78E-03	
TO-12 (TOT.ORGANICS,C2-C15)						1.52E-02	
Toluene						4.12E-04	
Triacetin	6.43E-10	9.64E-10	8.03E-08	3.86E-09	5.78E-09		
Xylenes (isomers and mixture)						3.35E-04	
HMX	1.88E-08	2.55E-09				8.64E-04	8.15E-10
RDX	2.14E-08	1.42E-06	2.32E-06	4.05E-07	6.07E-07	1.48E-03	1.20E-08
2,4,6-Trinitrotoluene	4.79E-08	1.38E-07		1.00E-07	1.50E-07	1.06E-04	1.43E-08
2,4-Dinitrotoluene		5.11E-07	1.10E-07			3.21E-05	9.23E-10
2,6-Dinitrotoluene		5.11E-07	1.10E-07			2.53E-05	
Nitroglycerin		3.00E-07	8.19E-07			1.17E-05	
Nitroguanidine			3.79E-07			1.14E-05	
Tetryl	1.88E-08	3.17E-08				2.33E-06	
Diphenylamine						1.42E-06	
2-Nitrodiphenylamine						1.79E-06	
Dibutylphthalate		1.11E-07	4.01E-08			2.35E-04	
Diethylphthalate		4.82E-10				3.39E-06	
Aluminum	2.04E-03	2.40E-03	1.34E-02			6.97E-02	
Antimony		1.84E-05				2.21E-04	
Barium		4.69E-04				9.01E-03	6.59E-07
Chromium +		1.07E-05				1.83E-03	3.97E-07
Iron		2.40E-04	6.25E-04			3.62E-05	
Lead		2.57E-03	1.12E-03			1.69E-02	2.13E-06

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Nickel		1.76E-04				3.49E-05	
Silicon		9.13E-04					
Tin		1.48E-04				1.84E-03	
Zirconium		2.45E-04				2.33E-05	
Aluminum						2.38E-01	
Copper						4.19E-01	
Manganese						7.08E-02	
Zinc (Casing)						5.47E-02	
Fiberglass						1.19E-01	
Plastic						1.19E-01	
Iron						1.09E+01	
							1.35E-06
+ Chromium consists of 90% trivalent chromium							8.70E-06
and 10% hexavalent chromium.							3.80E-10
							1.37E-09

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
1,3-Butadiene								
1,3,5-Trinitrobenzene	1.34E-08	4.46E-09	1.34E-08	7.23E-10	4.02E-11	5.02E-11	1.62E-10	8.10E-10
1,4-Dichlorobenzene								
1,6-Dinitropyrene	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
2-Nitronaphthalene	6.98E-08	2.32E-08	6.98E-08	3.76E-09	2.09E-10	2.61E-10	8.43E-10	4.22E-09
2-Nitrophenol	4.26E-07	1.42E-07	4.26E-07	2.30E-08	1.27E-09	1.59E-09	5.14E-09	2.57E-08
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	5.32E-05	1.77E-05	5.32E-05	2.87E-06	1.59E-07	1.99E-07	6.43E-07	3.21E-06
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	1.49E-05	4.96E-06	1.49E-05	8.04E-07	4.46E-08	5.58E-08	1.80E-07	9.00E-07
Benzo[a]pyrene	3.97E-07	1.32E-07	3.97E-07	2.14E-08	1.19E-09	1.49E-09	4.79E-09	2.40E-08
Benzo[b]fluoranthene								
Benz[c]acridine	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	8.66E-08	2.88E-08	8.66E-08	4.67E-09	2.60E-10	3.24E-10	1.05E-09	5.23E-09
Butyl benzyl phthalate								
Carbon monoxide	1.05E-03	3.49E-04	1.05E-03	5.66E-05	3.14E-06	3.93E-06	1.27E-05	6.34E-05
Chrysene								
Dibenzofurans	4.59E-05	1.53E-05	4.59E-05	2.48E-06	1.38E-07	1.72E-07	5.55E-07	2.77E-06
Dibenz[a,h]anthracene	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Diethylenetriamine	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Dioctylsebacate	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	5.32E-05	1.77E-05	5.32E-05	2.87E-06	1.59E-07	1.99E-07	6.43E-07	3.21E-06

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Isophoronedi-isocyanate	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Methane	3.92E-03	1.30E-03	3.92E-03	2.11E-04	1.17E-05	1.47E-05	4.73E-05	2.37E-04
Naphthalene	1.35E-06	4.50E-07	1.35E-06	7.28E-08	4.05E-09	5.06E-09	1.63E-08	8.16E-08
Nitric oxide	6.59E-03	2.19E-03	6.59E-03	3.55E-04	1.97E-05	2.47E-05	7.96E-05	3.98E-04
Nitrogen dioxide	1.99E-03	6.63E-04	1.99E-03	1.07E-04	5.96E-06	7.46E-06	2.41E-05	1.20E-04
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	6.08E-07	2.03E-07	6.08E-07	3.28E-08	1.82E-09	2.28E-09	7.35E-09	3.68E-08
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	2.84E-02	9.44E-03	2.84E-02	1.53E-03	8.50E-05	1.06E-04	3.43E-04	1.71E-03
Phenanthrene								
Phenyldiisodecylphosphite	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Phenol	6.16E-06	2.05E-06	6.16E-06	3.32E-07	1.85E-08	2.31E-08	7.44E-08	3.72E-07
Picric acid								
Pyrene	1.60E-07	5.33E-08	1.60E-07	8.63E-09	4.79E-10	5.99E-10	1.93E-09	9.66E-09
Resorcinol	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Salicylic Acid	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Styrene								
Sulfur dioxide	6.70E-04	2.23E-04	6.70E-04	3.62E-05	2.01E-06	2.51E-06	8.10E-06	4.05E-05
TNMHC	5.96E-04	1.99E-04	5.96E-04	3.22E-05	1.79E-06	2.23E-06	7.21E-06	3.60E-05
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	2.66E-08	8.85E-09	2.66E-08	1.43E-09	7.97E-11	9.96E-11	3.21E-10	1.61E-09
Xylenes (isomers and mixture)								
HMX				2.64E-08			5.91E-09	4.69E-08
RDX				9.90E-08			2.22E-08	5.35E-08
2,4,6-Trinitrotoluene				7.13E-08			1.60E-08	1.20E-07
2,4-Dinitrotoluene	1.33E-05	4.43E-06	1.33E-05		3.98E-08	4.98E-08		
2,6-Dinitrotoluene	1.33E-05	4.43E-06	1.33E-05		3.98E-08	4.98E-08		
Nitroglycerin	1.06E-04	3.54E-05	1.06E-04		3.19E-07	3.98E-07		
Nitroguanidine	1.27E-04	4.22E-05	1.27E-04	1.51E-08	3.80E-07	4.75E-07	3.37E-09	
Tetryl				2.64E-08			5.91E-09	4.69E-08
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	1.60E-05	5.31E-06	1.60E-05		4.78E-08	5.98E-08		
Diethylphthalate								
Aluminum	9.47E-05	3.15E-05	9.47E-05	1.48E-03	2.84E-07	3.55E-07	3.31E-04	5.11E-03
Antimony								
Barium	5.77E-04	1.92E-04	5.77E-04	1.51E-05	1.73E-06	2.16E-06	3.37E-06	
Chromium +								
Iron								
Lead				3.00E-05			6.72E-06	

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Nickel								
Silicon								
Tin	5.83E-04	1.94E-04	5.83E-04	1.52E-05	1.74E-06	2.18E-06	3.41E-06	
Zirconium								
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09	4.10E-08	
1,3-Butadiene						1.01E-05	
1,3,5-Trinitrobenzene	8.10E-11	1.22E-10	1.01E-08	4.86E-10	7.29E-10	2.81E-07	
1,4-Dichlorobenzene						4.01E-07	
1,6-Dinitropyrene	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
2-Methyl naphthalene						1.28E-06	
2-Methylphenol						9.50E-07	
2-Naphthylamine	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
2-Nitronaphthalene	4.22E-10	6.32E-10	5.27E-08	2.53E-09	3.79E-09	9.07E-08	
2-Nitrophenol	2.57E-09	3.86E-09	3.21E-07	1.54E-08	2.31E-08		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
4-Nitrophenol						2.70E-07	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Acenaphthylene						3.95E-07	
Acetophenone						2.38E-07	
alpha,alpha-Dimethylphenethylamine						1.53E-06	
Ammonia	3.21E-07	4.82E-07	4.02E-05	1.93E-06	2.89E-06	4.51E-04	
Anthracene						2.41E-07	
Aromatics (VOs, including benzene)						1.11E-03	
Benzene	9.00E-08	1.35E-07	1.13E-05	5.40E-07	8.10E-07	2.01E-04	
Benzo[a]pyrene	2.40E-09	3.59E-09	3.00E-07	1.44E-08	2.16E-08	1.27E-07	
Benzo[b]fluoranthene						1.85E-07	
Benz[c]acridine	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Benzyl alcohol						1.48E-07	
Benzo[k]fluoranthene						1.48E-07	
Benz[a]anthracene	5.23E-10	7.85E-10	6.54E-08	3.14E-09	4.71E-09	7.28E-08	
Butyl benzyl phthalate						7.93E-07	
Carbon monoxide	6.34E-06	9.50E-06	7.92E-04	3.80E-05	5.70E-05	5.99E-02	
Chrysene						3.55E-07	
Dibenzofurans	2.77E-07	4.16E-07	3.47E-05	1.66E-06	2.50E-06	3.78E-07	
Dibenz[a,h]anthracene	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09	6.63E-07	
Diethylenetriamine	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Dimethyl phthalate						3.70E-07	
Di-n-octyl phthalate						2.57E-06	
Di-n-propyladipate	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Dioctylsebacate	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Di(2-ethylhexyl)phthalate						2.96E-06	
Ethyl benzene						1.58E-05	
Fluoranthene						6.45E-07	
Fluorene						3.80E-07	
Hexane						1.24E-05	
Hydrogen cyanide	3.21E-07	4.82E-07	4.02E-05	1.93E-06	2.89E-06	3.50E-03	

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Isophoronedi-isocyanate	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Methane	2.37E-05	3.55E-05	2.96E-03	1.42E-04	2.13E-04	3.04E-03	
Naphthalene	8.16E-09	1.22E-08	1.02E-06	4.89E-08	7.34E-08	4.65E-06	
Nitric oxide	3.98E-05	5.97E-05	4.98E-03	2.39E-04	3.58E-04	3.77E-03	
Nitrogen dioxide	1.20E-05	1.80E-05	1.50E-03	7.22E-05	1.08E-04	2.06E-03	
N-Nitrosodiethylamine						1.85E-07	
N-Nitrosodiphenylamine	3.68E-09	5.51E-09	4.59E-07	2.20E-08	3.31E-08	6.41E-07	
Olefins (VOs)						1.02E-03	
Parafins (VOs)						1.31E-04	
Particulates (PM-10)	1.71E-04	2.57E-04	2.14E-02	1.03E-03	1.54E-03	3.70E-01	7.60E-02
Phenanthrene						8.32E-07	
Phenyldiisodecylphosphite	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Phenol	3.72E-08	5.58E-08	4.65E-06	2.23E-07	3.35E-07	2.82E-06	
Picric acid						7.72E-08	
Pyrene	9.66E-10	1.45E-09	1.21E-07	5.80E-09	8.70E-09	5.07E-07	
Resorcinol	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Salicylic Acid	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Styrene						6.60E-04	
Sulfur dioxide	4.05E-06	6.07E-06	5.06E-04	2.43E-05	3.64E-05	3.44E-04	
TNMHC	3.60E-06	5.40E-06	4.50E-04	2.16E-05	3.24E-05	2.44E-03	
TO-12 (TOT.ORGANICS,C2-C15)						3.80E-03	
Toluene						1.03E-04	
Triacetin	1.61E-10	2.41E-10	2.01E-08	9.64E-10	1.45E-09		
Xylenes (isomers and mixture)						8.37E-05	
HMX	4.69E-09	6.36E-10				2.16E-04	3.26E-09
RDX	5.35E-09	3.54E-07	5.80E-07	1.01E-07	1.52E-07	3.70E-04	4.80E-08
2,4,6-Trinitrotoluene	1.20E-08	3.45E-08		2.51E-08	3.76E-08	2.65E-05	5.71E-08
2,4-Dinitrotoluene		1.28E-07	2.75E-08			8.02E-06	3.69E-09
2,6-Dinitrotoluene		1.28E-07	2.75E-08			6.33E-06	
Nitroglycerin		7.50E-08	2.05E-07			2.92E-06	
Nitroguanidine			9.48E-08			2.84E-06	
Tetryl	4.69E-09	7.93E-09				5.82E-07	
Diphenylamine						3.55E-07	
2-Nitrodiphenylamine						4.47E-07	
Dibutylphthalate		2.77E-08	1.00E-08			5.86E-05	
Diethylphthalate		1.21E-10				8.49E-07	
Aluminum	5.11E-04	6.00E-04	3.35E-03			1.74E-02	
Antimony		4.60E-06				5.52E-05	
Barium		1.17E-04				2.25E-03	2.64E-06
Chromium +		2.68E-06				4.58E-04	1.59E-06
Iron		6.00E-05	1.56E-04			9.06E-06	
Lead		6.44E-04	2.81E-04			4.23E-03	8.51E-06

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Nickel		4.41E-05				8.73E-06	
Silicon		2.28E-04					
Tin		3.71E-05				4.60E-04	
Zirconium		6.12E-05				5.82E-06	
Aluminum						5.96E-02	
Copper						1.05E-01	
Manganese						1.77E-02	
Zinc (Casing)						1.37E-02	
Fiberglass						2.98E-02	
Plastic						2.98E-02	
Iron						2.72E+00	
							5.39E-06
+ Chromium consists of 90% trivalent chromium							3.48E-05
and 10% hexavalent chromium.							1.52E-09
							5.47E-09

DISCRETE RECEPTORS

Padanaram: 1 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	6.37E-06	2.12E-06	6.37E-06	1.34E-06	1.80E-07	2.25E-07	3.34E-07	3.34E-06
1,3-Butadiene								
1,3,5-Trinitrobenzene	3.86E-06	1.29E-06	3.86E-06	8.11E-07	1.09E-07	1.36E-07	2.03E-07	2.03E-06
1,4-Dichlorobenzene								
1,6-Dinitropyrene	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
2-Nitronaphthalene	2.14E-05	7.13E-06	2.14E-05	4.49E-06	6.03E-07	7.54E-07	1.12E-06	1.12E-05
2-Nitrophenol	1.60E-04	5.33E-05	1.60E-04	3.36E-05	4.51E-06	5.63E-06	8.39E-06	8.39E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	9.15E-03	3.05E-03	9.15E-03	1.92E-03	2.58E-04	3.23E-04	4.80E-04	4.80E-03
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	4.43E-03	1.48E-03	4.43E-03	9.30E-04	1.25E-04	1.56E-04	2.32E-04	2.32E-03
Benzo[a]pyrene	1.72E-04	5.72E-05	1.72E-04	3.60E-05	4.84E-06	6.05E-06	9.00E-06	9.00E-05
Benzo[b]fluoranthene								
Benz[c]acridine	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	3.00E-05	1.00E-05	3.00E-05	6.30E-06	8.46E-07	1.06E-06	1.57E-06	1.57E-05
Butyl benzyl phthalate								
Carbon monoxide	2.81E-01	9.36E-02	2.81E-01	5.90E-02	7.92E-03	9.90E-03	1.47E-02	1.47E-01
Chrysene								
Dibenzofurans	2.20E-02	7.33E-03	2.20E-02	4.62E-03	6.20E-04	7.75E-04	1.15E-03	1.15E-02
Dibenz[a,h]anthracene	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Diethylenetriamine	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Dioctylsebacate	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	9.15E-03	3.05E-03	9.15E-03	1.92E-03	2.58E-04	3.23E-04	4.80E-04	4.80E-03
Isophoronedi-isocyanate	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Methane	1.78E+00	5.92E-01	1.78E+00	3.73E-01	5.01E-02	6.26E-02	9.33E-02	9.33E-01

Padanaram: 1 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Naphthalene	4.41E-04	1.47E-04	4.41E-04	9.26E-05	1.24E-05	1.55E-05	2.32E-05	2.32E-04
Nitric oxide	1.62E+00	5.41E-01	1.62E+00	3.41E-01	4.58E-02	5.72E-02	8.52E-02	8.52E-01
Nitrogen dioxide	5.40E-01	1.80E-01	5.40E-01	1.13E-01	1.52E-02	1.90E-02	2.83E-02	2.83E-01
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	2.79E-04	9.30E-05	2.79E-04	5.86E-05	7.87E-06	9.84E-06	1.46E-05	1.46E-04
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	7.27E+00	2.42E+00	7.27E+00	1.53E+00	2.05E-01	2.56E-01	3.82E-01	3.82E+00
Phenanthrene								
Phenyldiisodecylphosphite	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Phenol	2.05E-03	6.82E-04	2.05E-03	4.29E-04	5.77E-05	7.21E-05	1.07E-04	1.07E-03
Picric acid								
Pyrene	6.40E-05	2.13E-05	6.40E-05	1.34E-05	1.80E-06	2.25E-06	3.36E-06	3.36E-05
Resorcinol	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Salicylic Acid	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Styrene								
Sulfur dioxide	3.36E-01	1.12E-01	3.36E-01	7.05E-02	9.47E-03	1.18E-02	1.76E-02	1.76E-01
TNMHC	1.73E-01	5.78E-02	1.73E-01	3.64E-02	4.89E-03	6.11E-03	9.10E-03	9.10E-02
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	4.58E-06	1.53E-06	4.58E-06	9.61E-07	1.29E-07	1.61E-07	2.40E-07	2.40E-06
Xylenes (isomers and mixture)								
HMX				1.77E-05			4.42E-06	7.01E-05
RDX				6.63E-05			1.66E-05	8.00E-05
2,4,6-Trinitrotoluene				4.77E-05			1.19E-05	1.79E-04
2,4-Dinitrotoluene	2.29E-03	7.63E-04	2.29E-03		6.45E-05	8.06E-05		
2,6-Dinitrotoluene	2.29E-03	7.63E-04	2.29E-03		6.45E-05	8.06E-05		
Nitroglycerin	1.83E-02	6.10E-03	1.83E-02		5.16E-04	6.45E-04		
Nitroguanidine	2.18E-02	7.27E-03	2.18E-02	1.01E-05	6.15E-04	7.69E-04	2.52E-06	
Tetryl				1.77E-05			4.42E-06	7.01E-05
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	2.75E-03	9.15E-04	2.75E-03		7.74E-05	9.68E-05		
Diethylphthalate								
Aluminum	1.63E-02	5.43E-03	1.63E-02	9.89E-01	4.59E-04	5.74E-04	2.47E-01	7.64E+00
Antimony								
Barium	9.93E-02	3.31E-02	9.93E-02	1.01E-02	2.80E-03	3.50E-03	2.52E-03	
Chromium +								
Iron								
Lead				2.01E-02			5.02E-03	
Nickel								
Silicon								
Tin	1.00E-01	3.34E-02	1.00E-01	1.02E-02	2.83E-03	3.53E-03	2.55E-03	
Zirconium								

Padanaram: 1 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Padanaram: 1 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	1.67E-07	1.25E-07	1.67E-05	1.23E-06	3.69E-06	1.16E-04	
1,3-Butadiene						4.10E-02	
1,3,5-Trinitrobenzene	1.01E-07	7.60E-08	1.01E-05	7.46E-07	2.24E-06	1.12E-03	
1,4-Dichlorobenzene						7.92E-04	
1,6-Dinitropyrene	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
2-Methyl naphthalene						4.83E-03	
2-Methylphenol						2.27E-03	
2-Naphthylamine	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
2-Nitronaphthalene	5.62E-07	4.21E-07	5.62E-05	4.13E-06	1.24E-05	2.83E-04	
2-Nitrophenol	4.19E-06	3.15E-06	4.19E-04	3.09E-05	9.26E-05		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
4-Nitrophenol						2.59E-03	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Acenaphthylene						1.21E-03	
Acetophenone						5.00E-04	
alpha,alpha-Dimethylphenethylamine						2.81E-03	
Ammonia	2.40E-04	1.80E-04	2.40E-02	1.77E-03	5.30E-03	8.29E-01	
Anthracene						5.83E-04	
Aromatics (VOs, including benzene)						5.23E+00	
Benzene	1.16E-04	8.72E-05	1.16E-02	8.55E-04	2.57E-03	6.79E-01	
Benzo[a]pyrene	4.50E-06	3.38E-06	4.50E-04	3.31E-05	9.94E-05	3.93E-04	
Benzo[b]fluoranthene						9.90E-04	
Benz[c]acridine	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Benzyl alcohol						3.53E-04	
Benzo[k]fluoranthene						7.92E-04	
Benz[a]anthracene	7.87E-07	5.90E-07	7.87E-05	5.79E-06	1.74E-05	2.14E-04	
Butyl benzyl phthalate						2.38E-03	
Carbon monoxide	7.37E-03	5.53E-03	7.37E-01	5.42E-02	1.63E-01	1.46E+02	
Chrysene						6.53E-04	
Dibenzofurans	5.77E-04	4.33E-04	5.77E-02	4.25E-03	1.27E-02	1.48E-03	
Dibenz[a,h]anthracene	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06	1.22E-03	
Diethylenetriamine	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Dimethyl phthalate						9.68E-04	
Di-n-octyl phthalate						9.51E-03	
Di-n-propyladipate	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Dioctylsebacate	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Di(2-ethylhexyl)phthalate						7.47E-03	
Ethyl benzene						6.76E-02	
Fluoranthene						2.12E-03	
Fluorene						8.39E-04	
Hexane						5.29E-02	
Hydrogen cyanide	2.40E-04	1.80E-04	2.40E-02	1.77E-03	5.30E-03	9.86E+00	
Isophoronedi-isocyanate	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Methane	4.66E-02	3.50E-02	4.66E+00	3.43E-01	1.03E+00	8.78E+00	

Padanaram: 1 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Naphthalene	1.16E-05	8.68E-06	1.16E-03	8.52E-05	2.56E-04	1.98E-02	
Nitric oxide	4.26E-02	3.20E-02	4.26E+00	3.13E-01	9.40E-01	1.42E+01	
Nitrogen dioxide	1.42E-02	1.06E-02	1.42E+00	1.04E-01	3.13E-01	5.80E+00	
N-Nitrosodiethylamine						3.41E-04	
N-Nitrosodiphenylamine	7.32E-06	5.49E-06	7.32E-04	5.39E-05	1.62E-04	2.99E-03	
Olefins (VOs)						3.44E+00	
Parafins (VOs)						2.93E-01	
Particulates (PM-10)	1.91E-01	1.43E-01	1.91E+01	1.40E+00	4.21E+00	1.13E+03	1.83E+01
Phenanthrene						3.05E-03	
Phenyldiisodecylphosphite	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Phenol	5.37E-05	4.03E-05	5.37E-03	3.95E-04	1.18E-03	1.09E-02	
Picric acid						1.42E-04	
Pyrene	1.68E-06	1.26E-06	1.68E-04	1.24E-05	3.71E-05	1.70E-03	
Resorcinol	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Salicylic Acid	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Styrene						2.94E+00	
Sulfur dioxide	8.81E-03	6.61E-03	8.81E-01	6.49E-02	1.95E-01	6.33E-01	
TNMHC	4.55E-03	3.41E-03	4.55E-01	3.35E-02	1.00E-01	6.23E+00	
TO-12 (TOT.ORGANICS,C2-C15)						1.41E+01	
Toluene						4.41E-01	
Triacetin	1.20E-07	9.00E-08	1.20E-05	8.83E-07	2.65E-06		
Xylenes (isomers and mixture)						3.80E-01	
HMX	3.51E-06	2.38E-07				3.97E-01	7.84E-07
RDX	4.00E-06	1.32E-04	3.47E-04	9.28E-05	2.78E-04	6.81E-01	1.15E-05
2,4,6-Trinitrotoluene	8.94E-06	1.29E-05		2.30E-05	6.89E-05	4.88E-02	1.37E-05
2,4-Dinitrotoluene		4.77E-05	1.64E-05			1.48E-02	8.88E-07
2,6-Dinitrotoluene		4.77E-05	1.64E-05			1.16E-02	
Nitroglycerin		2.80E-05	1.22E-04			5.36E-03	
Nitroguanidine			5.67E-05			5.22E-03	
Tetryl	3.51E-06	2.96E-06				1.07E-03	
Diphenylamine						6.53E-04	
2-Nitrodiphenylamine						8.23E-04	
Dibutylphthalate		1.04E-05	5.99E-06			1.08E-01	
Diethylphthalate		4.50E-08				1.56E-03	
Aluminum	3.82E-01	2.24E-01	2.01E+00			3.21E+01	
Antimony		1.72E-03				1.02E-01	
Barium		4.38E-02				4.14E+00	6.34E-04
Chromium +		1.00E-03				8.43E-01	3.82E-04
Iron		2.24E-02	9.34E-02			1.67E-02	
Lead		2.40E-01	1.68E-01			7.78E+00	2.05E-03
Nickel		1.65E-02				1.61E-02	
Silicon		8.53E-02					
Tin		1.39E-02				8.46E-01	
Zirconium		2.29E-02				1.07E-02	

Padanaram: 1 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Aluminum						1.10E+02	
Copper						1.92E+02	
Manganese						3.26E+01	
Zinc (Casing)						2.52E+01	
Fiberglass						5.48E+01	
Plastic						5.48E+01	
Iron						5.00E+03	
							1.29E-03
+ Chromium consists of 90% trivalent chromium							8.86E-03
and 10% hexavalent chromium.							3.65E-07
							1.31E-06

Padanaram: 3 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	3.82E-06	1.27E-06	3.82E-06	8.03E-07	5.39E-08	6.74E-08	2.01E-07	2.01E-06
1,3-Butadiene								
1,3,5-Trinitrobenzene	2.32E-06	7.73E-07	2.32E-06	4.87E-07	3.27E-08	4.08E-08	1.22E-07	1.22E-06
1,4-Dichlorobenzene								
1,6-Dinitropyrene	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
2-Nitronaphthalene	1.28E-05	4.28E-06	1.28E-05	2.70E-06	1.81E-07	2.26E-07	6.74E-07	6.74E-06
2-Nitrophenol	9.59E-05	3.20E-05	9.59E-05	2.01E-05	1.35E-06	1.69E-06	5.03E-06	5.03E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	5.49E-03	1.83E-03	5.49E-03	1.15E-03	7.74E-05	9.68E-05	2.88E-04	2.88E-03
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	2.66E-03	8.86E-04	2.66E-03	5.58E-04	3.75E-05	4.68E-05	1.39E-04	1.39E-03
Benzo[a]pyrene	1.03E-04	3.43E-05	1.03E-04	2.16E-05	1.45E-06	1.81E-06	5.40E-06	5.40E-05
Benzo[b]fluoranthene								
Benz[c]acridine	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	1.80E-05	6.00E-06	1.80E-05	3.78E-06	2.54E-07	3.17E-07	9.45E-07	9.45E-06
Butyl benzyl phthalate								
Carbon monoxide	1.69E-01	5.62E-02	1.69E-01	3.54E-02	2.38E-03	2.97E-03	8.85E-03	8.85E-02
Chrysene								
Dibenzofurans	1.32E-02	4.40E-03	1.32E-02	2.77E-03	1.86E-04	2.33E-04	6.93E-04	6.93E-03
Dibenz[a,h]anthracene	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Diethylenetriamine	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Dioctylsebacate	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	5.49E-03	1.83E-03	5.49E-03	1.15E-03	7.74E-05	9.68E-05	2.88E-04	2.88E-03
Isophoronedi-isocyanate	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Methane	1.07E+00	3.55E-01	1.07E+00	2.24E-01	1.50E-02	1.88E-02	5.60E-02	5.60E-01

Padanaram: 3 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Naphthalene	2.65E-04	8.82E-05	2.65E-04	5.56E-05	3.73E-06	4.66E-06	1.39E-05	1.39E-04
Nitric oxide	9.74E-01	3.25E-01	9.74E-01	2.05E-01	1.37E-02	1.72E-02	5.11E-02	5.11E-01
Nitrogen dioxide	3.24E-01	1.08E-01	3.24E-01	6.80E-02	4.56E-03	5.71E-03	1.70E-02	1.70E-01
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	1.67E-04	5.58E-05	1.67E-04	3.52E-05	2.36E-06	2.95E-06	8.79E-06	8.79E-05
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	4.36E+00	1.45E+00	4.36E+00	9.16E-01	6.15E-02	7.69E-02	2.29E-01	2.29E+00
Phenanthrene								
Phenyldiisodecylphosphite	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Phenol	1.23E-03	4.09E-04	1.23E-03	2.58E-04	1.73E-05	2.16E-05	6.44E-05	6.44E-04
Picric acid								
Pyrene	3.84E-05	1.28E-05	3.84E-05	8.06E-06	5.41E-07	6.76E-07	2.01E-06	2.01E-05
Resorcinol	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Salicylic Acid	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Styrene								
Sulfur dioxide	2.02E-01	6.72E-02	2.02E-01	4.23E-02	2.84E-03	3.55E-03	1.06E-02	1.06E-01
TNMHC	1.04E-01	3.47E-02	1.04E-01	2.18E-02	1.47E-03	1.83E-03	5.46E-03	5.46E-02
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	2.75E-06	9.15E-07	2.75E-06	5.76E-07	3.87E-08	4.84E-08	1.44E-07	1.44E-06
Xylenes (isomers and mixture)								
HMX				1.06E-05			2.65E-06	4.21E-05
RDX				3.98E-05			9.94E-06	4.80E-05
2,4,6-Trinitrotoluene				2.86E-05			7.16E-06	1.07E-04
2,4-Dinitrotoluene	1.37E-03	4.58E-04	1.37E-03		1.94E-05	2.42E-05		
2,6-Dinitrotoluene	1.37E-03	4.58E-04	1.37E-03		1.94E-05	2.42E-05		
Nitroglycerin	1.10E-02	3.66E-03	1.10E-02		1.55E-04	1.94E-04		
Nitroguanidine	1.31E-02	4.36E-03	1.31E-02	6.05E-06	1.85E-04	2.31E-04	1.51E-06	
Tetryl				1.06E-05			2.65E-06	4.21E-05
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	1.65E-03	5.49E-04	1.65E-03		2.32E-05	2.90E-05		
Diethylphthalate								
Aluminum	9.77E-03	3.26E-03	9.77E-03	5.94E-01	1.38E-04	1.72E-04	1.48E-01	4.58E+00
Antimony								
Barium	5.96E-02	1.99E-02	5.96E-02	6.05E-03	8.40E-04	1.05E-03	1.51E-03	
Chromium +								
Iron								
Lead				1.20E-02			3.01E-03	
Nickel								
Silicon								
Tin	6.01E-02	2.00E-02	6.01E-02	6.11E-03	8.48E-04	1.06E-03	1.53E-03	
Zirconium								

Padanaram: 3 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Padanaram: 3 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	1.50E-07	1.13E-07	1.50E-05	1.11E-06	3.32E-06	3.48E-05	
1,3-Butadiene						1.23E-02	
1,3,5-Trinitrobenzene	9.12E-08	6.84E-08	9.12E-06	6.71E-07	2.01E-06	3.36E-04	
1,4-Dichlorobenzene						2.38E-04	
1,6-Dinitropyrene	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
2-Methyl naphthalene						1.45E-03	
2-Methylphenol						6.80E-04	
2-Naphthylamine	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
2-Nitronaphthalene	5.05E-07	3.79E-07	5.05E-05	3.72E-06	1.12E-05	8.50E-05	
2-Nitrophenol	3.77E-06	2.83E-06	3.77E-04	2.78E-05	8.33E-05		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
4-Nitrophenol						7.76E-04	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Acenaphthylene						3.64E-04	
Acetophenone						1.50E-04	
alpha,alpha-Dimethylphenethylamine						8.43E-04	
Ammonia	2.16E-04	1.62E-04	2.16E-02	1.59E-03	4.77E-03	2.49E-01	
Anthracene						1.75E-04	
Aromatics (VOs, including benzene)						1.57E+00	
Benzene	1.05E-04	7.84E-05	1.05E-02	7.70E-04	2.31E-03	2.04E-01	
Benzo[a]pyrene	4.05E-06	3.04E-06	4.05E-04	2.98E-05	8.94E-05	1.18E-04	
Benzo[b]fluoranthene						2.97E-04	
Benz[c]acridine	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Benzyl alcohol						1.06E-04	
Benzo[k]fluoranthene						2.38E-04	
Benz[a]anthracene	7.08E-07	5.31E-07	7.08E-05	5.21E-06	1.56E-05	6.43E-05	
Butyl benzyl phthalate						7.13E-04	
Carbon monoxide	6.63E-03	4.98E-03	6.63E-01	4.88E-02	1.46E-01	4.38E+01	
Chrysene						1.96E-04	
Dibenzofurans	5.19E-04	3.90E-04	5.19E-02	3.82E-03	1.15E-02	4.43E-04	
Dibenz[a,h]anthracene	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06	3.66E-04	
Diethylenetriamine	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Dimethyl phthalate						2.90E-04	
Di-n-octyl phthalate						2.85E-03	
Di-n-propyladipate	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Dioctylsebacate	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Di(2-ethylhexyl)phthalate						2.24E-03	
Ethyl benzene						2.03E-02	
Fluoranthene						6.35E-04	
Fluorene						2.52E-04	
Hexane						1.59E-02	
Hydrogen cyanide	2.16E-04	1.62E-04	2.16E-02	1.59E-03	4.77E-03	2.96E+00	
Isophoronedi-isocyanate	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Methane	4.20E-02	3.15E-02	4.20E+00	3.09E-01	9.26E-01	2.63E+00	

Padanaram: 3 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Naphthalene	1.04E-05	7.81E-06	1.04E-03	7.67E-05	2.30E-04	5.93E-03	
Nitric oxide	3.83E-02	2.88E-02	3.83E+00	2.82E-01	8.46E-01	4.27E+00	
Nitrogen dioxide	1.27E-02	9.56E-03	1.27E+00	9.38E-02	2.81E-01	1.74E+00	
N-Nitrosodiethylamine						1.02E-04	
N-Nitrosodiphenylamine	6.59E-06	4.94E-06	6.59E-04	4.85E-05	1.45E-04	8.98E-04	
Olefins (VOs)						1.03E+00	
Parafins (VOs)						8.80E-02	
Particulates (PM-10)	1.72E-01	1.29E-01	1.72E+01	1.26E+00	3.79E+00	3.40E+02	1.64E+01
Phenanthrene						9.15E-04	
Phenyldiisodecylphosphite	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Phenol	4.83E-05	3.62E-05	4.83E-03	3.55E-04	1.07E-03	3.27E-03	
Picric acid						4.26E-05	
Pyrene	1.51E-06	1.13E-06	1.51E-04	1.11E-05	3.34E-05	5.11E-04	
Resorcinol	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Salicylic Acid	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Styrene						8.81E-01	
Sulfur dioxide	7.93E-03	5.95E-03	7.93E-01	5.84E-02	1.75E-01	1.90E-01	
TNMHC	4.09E-03	3.07E-03	4.09E-01	3.01E-02	9.03E-02	1.87E+00	
TO-12 (TOT.ORGANICS,C2-C15)						4.24E+00	
Toluene						1.32E-01	
Triacetin	1.08E-07	8.10E-08	1.08E-05	7.95E-07	2.39E-06		
Xylenes (isomers and mixture)						1.14E-01	
HMX	3.16E-06	2.14E-07				1.19E-01	7.05E-07
RDX	3.60E-06	1.19E-04	3.12E-04	8.35E-05	2.50E-04	2.04E-01	1.04E-05
2,4,6-Trinitrotoluene	8.05E-06	1.16E-05		2.07E-05	6.20E-05	1.46E-02	1.23E-05
2,4-Dinitrotoluene		4.30E-05	1.48E-05			4.43E-03	7.99E-07
2,6-Dinitrotoluene		4.30E-05	1.48E-05			3.49E-03	
Nitroglycerin		2.52E-05	1.10E-04			1.61E-03	
Nitroguanidine			5.10E-05			1.57E-03	
Tetryl	3.16E-06	2.67E-06				3.21E-04	
Diphenylamine						1.96E-04	
2-Nitrodiphenylamine						2.47E-04	
Dibutylphthalate		9.32E-06	5.39E-06			3.24E-02	
Diethylphthalate		4.05E-08				4.68E-04	
Aluminum	3.44E-01	2.02E-01	1.80E+00			9.62E+00	
Antimony		1.55E-03				3.05E-02	
Barium		3.94E-02				1.24E+00	5.70E-04
Chromium +		9.00E-04				2.53E-01	3.44E-04
Iron		2.02E-02	8.41E-02			5.00E-03	
Lead		2.16E-01	1.51E-01			2.33E+00	1.84E-03
Nickel		1.48E-02				4.82E-03	
Silicon		7.67E-02					
Tin		1.25E-02				2.54E-01	
Zirconium		2.06E-02				3.21E-03	

Padanaram: 3 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Aluminum						3.29E+01	
Copper						5.77E+01	
Manganese						9.77E+00	
Zinc (Casing)						7.55E+00	
Fiberglass						1.64E+01	
Plastic						1.64E+01	
Iron						1.50E+03	
							1.17E-03
+ Chromium consists of 90% trivalent chromium							7.97E-03
and 10% hexavalent chromium.							3.29E-07
							1.18E-06

Padanaram: 8 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	1.67E-06	5.57E-07	1.67E-06	4.68E-07	3.14E-08	3.93E-08	1.17E-07	5.85E-07
1,3-Butadiene								
1,3,5-Trinitrobenzene	1.01E-06	3.38E-07	1.01E-06	2.84E-07	1.91E-08	2.38E-08	7.10E-08	3.55E-07
1,4-Dichlorobenzene								
1,6-Dinitropyrene	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
2-Nitronaphthalene	5.62E-06	1.87E-06	5.62E-06	1.57E-06	1.06E-07	1.32E-07	3.93E-07	1.97E-06
2-Nitrophenol	4.20E-05	1.40E-05	4.20E-05	1.17E-05	7.89E-07	9.86E-07	2.94E-06	1.47E-05
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	2.40E-03	8.01E-04	2.40E-03	6.72E-04	4.52E-05	5.64E-05	1.68E-04	8.40E-04
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	1.16E-03	3.87E-04	1.16E-03	3.25E-04	2.19E-05	2.73E-05	8.14E-05	4.07E-04
Benzo[a]pyrene	4.50E-05	1.50E-05	4.50E-05	1.26E-05	8.46E-07	1.06E-06	3.15E-06	1.58E-05
Benzo[b]fluoranthene								
Benz[c]acridine	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	7.87E-06	2.62E-06	7.87E-06	2.20E-06	1.48E-07	1.85E-07	5.51E-07	2.75E-06
Butyl benzyl phthalate								
Carbon monoxide	7.37E-02	2.46E-02	7.37E-02	2.06E-02	1.39E-03	1.73E-03	5.16E-03	2.58E-02
Chrysene								
Dibenzofurans	5.77E-03	1.92E-03	5.77E-03	1.62E-03	1.09E-04	1.36E-04	4.04E-04	2.02E-03
Dibenz[a,h]anthracene	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Diethylenetriamine	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Dioctylsebacate	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	2.40E-03	8.01E-04	2.40E-03	6.72E-04	4.52E-05	5.64E-05	1.68E-04	8.40E-04
Isophoronedi-isocyanate	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Methane	4.66E-01	1.55E-01	4.66E-01	1.31E-01	8.77E-03	1.10E-02	3.26E-02	1.63E-01

Padanaram: 8 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Naphthalene	1.16E-04	3.86E-05	1.16E-04	3.24E-05	2.18E-06	2.72E-06	8.10E-06	4.05E-05
Nitric oxide	4.26E-01	1.42E-01	4.26E-01	1.19E-01	8.01E-03	1.00E-02	2.98E-02	1.49E-01
Nitrogen dioxide	1.42E-01	4.72E-02	1.42E-01	3.96E-02	2.66E-03	3.33E-03	9.91E-03	4.96E-02
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	7.33E-05	2.44E-05	7.33E-05	2.05E-05	1.38E-06	1.72E-06	5.13E-06	2.56E-05
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	1.91E+00	6.36E-01	1.91E+00	5.34E-01	3.59E-02	4.48E-02	1.34E-01	6.68E-01
Phenanthrene								
Phenyldiisodecylphosphite	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Phenol	5.37E-04	1.79E-04	5.37E-04	1.50E-04	1.01E-05	1.26E-05	3.76E-05	1.88E-04
Picric acid								
Pyrene	1.68E-05	5.60E-06	1.68E-05	4.70E-06	3.16E-07	3.95E-07	1.18E-06	5.88E-06
Resorcinol	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Salicylic Acid	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Styrene								
Sulfur dioxide	8.82E-02	2.94E-02	8.82E-02	2.47E-02	1.66E-03	2.07E-03	6.17E-03	3.09E-02
TNMHC	4.55E-02	1.52E-02	4.55E-02	1.27E-02	8.55E-04	1.07E-03	3.18E-03	1.59E-02
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	1.20E-06	4.00E-07	1.20E-06	3.36E-07	2.26E-08	2.82E-08	8.40E-08	4.20E-07
Xylenes (isomers and mixture)								
HMX				6.19E-06			1.55E-06	1.23E-05
RDX				2.32E-05			5.80E-06	1.40E-05
2,4,6-Trinitrotoluene				1.67E-05			4.18E-06	3.13E-05
2,4-Dinitrotoluene	6.00E-04	2.00E-04	6.00E-04		1.13E-05	1.41E-05		
2,6-Dinitrotoluene	6.00E-04	2.00E-04	6.00E-04		1.13E-05	1.41E-05		
Nitroglycerin	4.80E-03	1.60E-03	4.80E-03		9.03E-05	1.13E-04		
Nitroguanidine	5.73E-03	1.91E-03	5.73E-03	3.53E-06	1.08E-04	1.35E-04	8.82E-07	
Tetryl				6.19E-06			1.55E-06	1.23E-05
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	7.21E-04	2.40E-04	7.21E-04		1.35E-05	1.69E-05		
Diethylphthalate								
Aluminum	4.28E-03	1.43E-03	4.28E-03	3.46E-01	8.04E-05	1.00E-04	8.66E-02	1.34E+00
Antimony								
Barium	2.61E-02	8.69E-03	2.61E-02	3.53E-03	4.90E-04	6.12E-04	8.82E-04	
Chromium +								
Iron								
Lead				7.03E-03			1.76E-03	
Nickel								
Silicon								
Tin	2.63E-02	8.77E-03	2.63E-02	3.56E-03	4.94E-04	6.18E-04	8.91E-04	
Zirconium								

Padanaram: 8 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Padanaram: 8 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	5.85E-08	8.78E-08	1.17E-05	8.61E-07	1.29E-06	1.01E-05	
1,3-Butadiene						3.58E-03	
1,3,5-Trinitrobenzene	3.55E-08	5.32E-08	7.10E-06	5.22E-07	7.83E-07	9.79E-05	
1,4-Dichlorobenzene						6.93E-05	
1,6-Dinitropyrene	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
2-Methyl naphthalene						4.23E-04	
2-Methylphenol						1.98E-04	
2-Naphthylamine	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
2-Nitronaphthalene	1.97E-07	2.95E-07	3.93E-05	2.89E-06	4.34E-06	2.48E-05	
2-Nitrophenol	1.47E-06	2.20E-06	2.94E-04	2.16E-05	3.24E-05		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
4-Nitrophenol						2.26E-04	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Acenaphthylene						1.06E-04	
Acetophenone						4.38E-05	
alpha,alpha-Dimethylphenethylamine						2.46E-04	
Ammonia	8.40E-05	1.26E-04	1.68E-02	1.24E-03	1.86E-03	7.25E-02	
Anthracene						5.10E-05	
Aromatics (VOs, including benzene)						4.57E-01	
Benzene	4.07E-05	6.10E-05	8.14E-03	5.99E-04	8.98E-04	5.94E-02	
Benzo[a]pyrene	1.58E-06	2.36E-06	3.15E-04	2.32E-05	3.48E-05	3.44E-05	
Benzo[b]fluoranthene						8.66E-05	
Benz[c]acridine	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Benzyl alcohol						3.09E-05	
Benzo[k]fluoranthene						6.93E-05	
Benz[a]anthracene	2.75E-07	4.13E-07	5.51E-05	4.05E-06	6.08E-06	1.88E-05	
Butyl benzyl phthalate						2.08E-04	
Carbon monoxide	2.58E-03	3.87E-03	5.16E-01	3.80E-02	5.69E-02	1.28E+01	
Chrysene						5.71E-05	
Dibenzofurans	2.02E-04	3.03E-04	4.04E-02	2.97E-03	4.46E-03	1.29E-04	
Dibenz[a,h]anthracene	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07	1.07E-04	
Diethylenetriamine	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Dimethyl phthalate						8.47E-05	
Di-n-octyl phthalate						8.32E-04	
Di-n-propyladipate	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Dioctylsebacate	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Di(2-ethylhexyl)phthalate						6.54E-04	
Ethyl benzene						5.91E-03	
Fluoranthene						1.85E-04	
Fluorene						7.34E-05	
Hexane						4.63E-03	
Hydrogen cyanide	8.40E-05	1.26E-04	1.68E-02	1.24E-03	1.86E-03	8.63E-01	
Isophoronedi-isocyanate	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Methane	1.63E-02	2.45E-02	3.26E+00	2.40E-01	3.60E-01	7.68E-01	

Padanaram: 8 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Naphthalene	4.05E-06	6.08E-06	8.10E-04	5.96E-05	8.94E-05	1.73E-03	
Nitric oxide	1.49E-02	2.24E-02	2.98E+00	2.19E-01	3.29E-01	1.25E+00	
Nitrogen dioxide	4.96E-03	7.43E-03	9.91E-01	7.29E-02	1.09E-01	5.08E-01	
N-Nitrosodiethylamine						2.98E-05	
N-Nitrosodiphenylamine	2.56E-06	3.85E-06	5.13E-04	3.77E-05	5.66E-05	2.62E-04	
Olefins (VOs)						3.01E-01	
Parafins (VOs)						2.57E-02	
Particulates (PM-10)	6.68E-02	1.00E-01	1.34E+01	9.83E-01	1.47E+00	9.93E+01	5.99E+00
Phenanthrene						2.67E-04	
Phenyldiisodecylphosphite	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Phenol	1.88E-05	2.82E-05	3.76E-03	2.76E-04	4.15E-04	9.55E-04	
Picric acid						1.24E-05	
Pyrene	5.88E-07	8.81E-07	1.18E-04	8.65E-06	1.30E-05	1.49E-04	
Resorcinol	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Salicylic Acid	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Styrene						2.57E-01	
Sulfur dioxide	3.09E-03	4.63E-03	6.17E-01	4.54E-02	6.81E-02	5.54E-02	
TNMHC	1.59E-03	2.39E-03	3.18E-01	2.34E-02	3.51E-02	5.45E-01	
TO-12 (TOT.ORGANICS,C2-C15)						1.24E+00	
Toluene						3.86E-02	
Triacetin	4.20E-08	6.30E-08	8.40E-06	6.18E-07	9.28E-07		
Xylenes (isomers and mixture)						3.32E-02	
HMX	1.23E-06	1.66E-07				3.48E-02	2.57E-07
RDX	1.40E-06	9.27E-05	2.43E-04	6.49E-05	9.74E-05	5.96E-02	3.79E-06
2,4,6-Trinitrotoluene	3.13E-06	9.01E-06		1.61E-05	2.41E-05	4.27E-03	4.50E-06
2,4-Dinitrotoluene		3.34E-05	1.15E-05			1.29E-03	2.91E-07
2,6-Dinitrotoluene		3.34E-05	1.15E-05			1.02E-03	
Nitroglycerin		1.96E-05	8.57E-05			4.69E-04	
Nitroguanidine			3.97E-05			4.57E-04	
Tetryl	1.23E-06	2.07E-06				9.36E-05	
Diphenylamine						5.71E-05	
2-Nitrodiphenylamine						7.20E-05	
Dibutylphthalate		7.25E-06	4.19E-06			9.44E-03	
Diethylphthalate		3.15E-08				1.37E-04	
Aluminum	1.34E-01	1.57E-01	1.40E+00			2.81E+00	
Antimony		1.20E-03				8.89E-03	
Barium		3.06E-02				3.63E-01	2.08E-04
Chromium +		7.00E-04				7.38E-02	1.25E-04
Iron		1.57E-02	6.54E-02			1.46E-03	
Lead		1.68E-01	1.18E-01			6.80E-01	6.71E-04
Nickel		1.15E-02				1.41E-03	
Silicon		5.97E-02					
Tin		9.71E-03				7.40E-02	
Zirconium		1.60E-02				9.36E-04	

Padanaram: 8 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Aluminum						9.59E+00	
Copper						1.68E+01	
Manganese						2.85E+00	
Zinc (Casing)						2.20E+00	
Fiberglass						4.79E+00	
Plastic						4.79E+00	
Iron						4.38E+02	
							4.25E-04
+ Chromium consists of 90% trivalent chromium							2.74E-03
and 10% hexavalent chromium.							1.20E-07
							4.31E-07

Padanaram: 24 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	5.31E-07	1.77E-07	5.31E-07	8.92E-08	5.99E-09	7.49E-09	2.23E-08	1.11E-07
1,3-Butadiene								
1,3,5-Trinitrobenzene	3.22E-07	1.07E-07	3.22E-07	5.41E-08	3.63E-09	4.54E-09	1.35E-08	6.76E-08
1,4-Dichlorobenzene								
1,6-Dinitropyrene	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
2-Nitronaphthalene	1.78E-06	5.94E-07	1.78E-06	2.99E-07	2.01E-08	2.51E-08	7.49E-08	3.74E-07
2-Nitrophenol	1.33E-05	4.44E-06	1.33E-05	2.24E-06	1.50E-07	1.88E-07	5.59E-07	2.80E-06
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	7.63E-04	2.54E-04	7.63E-04	1.28E-04	8.60E-06	1.08E-05	3.20E-05	1.60E-04
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	3.69E-04	1.23E-04	3.69E-04	6.20E-05	4.16E-06	5.20E-06	1.55E-05	7.75E-05
Benzo[a]pyrene	1.43E-05	4.77E-06	1.43E-05	2.40E-06	1.61E-07	2.02E-07	6.00E-07	3.00E-06
Benzo[b]fluoranthene								
Benz[c]acridine	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	2.50E-06	8.33E-07	2.50E-06	4.20E-07	2.82E-08	3.52E-08	1.05E-07	5.25E-07
Butyl benzyl phthalate								
Carbon monoxide	2.34E-02	7.80E-03	2.34E-02	3.93E-03	2.64E-04	3.30E-04	9.83E-04	4.91E-03
Chrysene								
Dibenzofurans	1.83E-03	6.11E-04	1.83E-03	3.08E-04	2.07E-05	2.58E-05	7.69E-05	3.85E-04
Dibenz[a,h]anthracene	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Diethylenetriamine	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Dioctylsebacate	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	7.63E-04	2.54E-04	7.63E-04	1.28E-04	8.60E-06	1.08E-05	3.20E-05	1.60E-04
Isophoronedi-isocyanate	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Methane	1.48E-01	4.94E-02	1.48E-01	2.49E-02	1.67E-03	2.09E-03	6.22E-03	3.11E-02

Padanaram: 24 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Naphthalene	3.68E-05	1.23E-05	3.68E-05	6.17E-06	4.15E-07	5.18E-07	1.54E-06	7.72E-06
Nitric oxide	1.35E-01	4.51E-02	1.35E-01	2.27E-02	1.53E-03	1.91E-03	5.68E-03	2.84E-02
Nitrogen dioxide	4.50E-02	1.50E-02	4.50E-02	7.55E-03	5.07E-04	6.34E-04	1.89E-03	9.44E-03
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	2.33E-05	7.75E-06	2.33E-05	3.91E-06	2.62E-07	3.28E-07	9.77E-07	4.88E-06
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	6.06E-01	2.02E-01	6.06E-01	1.02E-01	6.83E-03	8.54E-03	2.54E-02	1.27E-01
Phenanthrene								
Phenyldiisodecylphosphite	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Phenol	1.70E-04	5.68E-05	1.70E-04	2.86E-05	1.92E-06	2.40E-06	7.16E-06	3.58E-05
Picric acid								
Pyrene	5.33E-06	1.78E-06	5.33E-06	8.95E-07	6.01E-08	7.52E-08	2.24E-07	1.12E-06
Resorcinol	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Salicylic Acid	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Styrene								
Sulfur dioxide	2.80E-02	9.33E-03	2.80E-02	4.70E-03	3.16E-04	3.95E-04	1.18E-03	5.88E-03
TNMHC	1.44E-02	4.81E-03	1.44E-02	2.43E-03	1.63E-04	2.04E-04	6.06E-04	3.03E-03
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	3.81E-07	1.27E-07	3.81E-07	6.40E-08	4.30E-09	5.38E-09	1.60E-08	8.00E-08
Xylenes (isomers and mixture)								
HMX				1.18E-06			2.95E-07	2.34E-06
RDX				4.42E-06			1.10E-06	2.67E-06
2,4,6-Trinitrotoluene				3.18E-06			7.96E-07	5.96E-06
2,4-Dinitrotoluene	1.91E-04	6.35E-05	1.91E-04		2.15E-06	2.69E-06		
2,6-Dinitrotoluene	1.91E-04	6.35E-05	1.91E-04		2.15E-06	2.69E-06		
Nitroglycerin	1.53E-03	5.08E-04	1.53E-03		1.72E-05	2.15E-05		
Nitroguanidine	1.82E-03	6.06E-04	1.82E-03	6.72E-07	2.05E-05	2.56E-05	1.68E-07	
Tetryl				1.18E-06			2.95E-07	2.34E-06
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	2.29E-04	7.63E-05	2.29E-04		2.58E-06	3.23E-06		
Diethylphthalate								
Aluminum	1.36E-03	4.52E-04	1.36E-03	6.60E-02	1.53E-05	1.91E-05	1.65E-02	2.55E-01
Antimony								
Barium	8.27E-03	2.76E-03	8.27E-03	6.72E-04	9.33E-05	1.17E-04	1.68E-04	
Chromium +								
Iron								
Lead				1.34E-03			3.35E-04	
Nickel								
Silicon								
Tin	8.35E-03	2.78E-03	8.35E-03	6.79E-04	9.42E-05	1.18E-04	1.70E-04	
Zirconium								

Padanaram: 24 Hour

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Padanaram: 24 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	1.11E-08	1.67E-08	2.79E-06	1.64E-07	2.46E-07	1.93E-06	
1,3-Butadiene						6.83E-04	
1,3,5-Trinitrobenzene	6.76E-09	1.01E-08	1.69E-06	9.94E-08	1.49E-07	1.86E-05	
1,4-Dichlorobenzene						1.32E-05	
1,6-Dinitropyrene	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
2-Methyl naphthalene						8.05E-05	
2-Methylphenol						3.78E-05	
2-Naphthylamine	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
2-Nitronaphthalene	3.74E-08	5.62E-08	9.36E-06	5.51E-07	8.26E-07	4.72E-06	
2-Nitrophenol	2.80E-07	4.19E-07	6.99E-05	4.11E-06	6.17E-06		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
4-Nitrophenol						4.31E-05	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Acenaphthylene						2.02E-05	
Acetophenone						8.34E-06	
alpha,alpha-Dimethylphenethylamine						4.68E-05	
Ammonia	1.60E-05	2.40E-05	4.00E-03	2.36E-04	3.53E-04	1.38E-02	
Anthracene						9.72E-06	
Aromatics (VOs, including benzene)						8.71E-02	
Benzene	7.75E-06	1.16E-05	1.94E-03	1.14E-04	1.71E-04	1.13E-02	
Benzo[a]pyrene	3.00E-07	4.50E-07	7.50E-05	4.42E-06	6.62E-06	6.56E-06	
Benzo[b]fluoranthene						1.65E-05	
Benz[c]acridine	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Benzyl alcohol						5.89E-06	
Benzo[k]fluoranthene						1.32E-05	
Benz[a]anthracene	5.25E-08	7.87E-08	1.31E-05	7.72E-07	1.16E-06	3.57E-06	
Butyl benzyl phthalate						3.96E-05	
Carbon monoxide	4.91E-04	7.37E-04	1.23E-01	7.23E-03	1.08E-02	2.44E+00	
Chrysene						1.09E-05	
Dibenzofurans	3.85E-05	5.77E-05	9.62E-03	5.66E-04	8.49E-04	2.46E-05	
Dibenz[a,h]anthracene	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07	2.03E-05	
Diethylenetriamine	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Dimethyl phthalate						1.61E-05	
Di-n-octyl phthalate						1.58E-04	
Di-n-propyladipate	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Dioctylsebacate	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Di(2-ethylhexyl)phthalate						1.24E-04	
Ethyl benzene						1.13E-03	
Fluoranthene						3.53E-05	
Fluorene						1.40E-05	
Hexane						8.82E-04	
Hydrogen cyanide	1.60E-05	2.40E-05	4.00E-03	2.36E-04	3.53E-04	1.64E-01	
Isophoronedi-isocyanate	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Methane	3.11E-03	4.66E-03	7.77E-01	4.57E-02	6.86E-02	1.46E-01	

Padanaram: 24 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Naphthalene	7.72E-07	1.16E-06	1.93E-04	1.14E-05	1.70E-05	3.29E-04	
Nitric oxide	2.84E-03	4.26E-03	7.10E-01	4.18E-02	6.27E-02	2.37E-01	
Nitrogen dioxide	9.44E-04	1.42E-03	2.36E-01	1.39E-02	2.08E-02	9.67E-02	
N-Nitrosodiethylamine						5.68E-06	
N-Nitrosodiphenylamine	4.88E-07	7.32E-07	1.22E-04	7.18E-06	1.08E-05	4.99E-05	
Olefins (VOs)						5.73E-02	
Parafins (VOs)						4.89E-03	
Particulates (PM-10)	1.27E-02	1.91E-02	3.18E+00	1.87E-01	2.81E-01	1.89E+01	3.50E+00
Phenanthrene						5.08E-05	
Phenyldiisodecylphosphite	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Phenol	3.58E-06	5.37E-06	8.95E-04	5.27E-05	7.90E-05	1.82E-04	
Picric acid						2.37E-06	
Pyrene	1.12E-07	1.68E-07	2.80E-05	1.65E-06	2.47E-06	2.84E-05	
Resorcinol	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Salicylic Acid	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Styrene						4.89E-02	
Sulfur dioxide	5.88E-04	8.81E-04	1.47E-01	8.65E-03	1.30E-02	1.05E-02	
TNMHC	3.03E-04	4.55E-04	7.58E-02	4.46E-03	6.69E-03	1.04E-01	
TO-12 (TOT.ORGANICS,C2-C15)						2.36E-01	
Toluene						7.36E-03	
Triacetin	8.00E-09	1.20E-08	2.00E-06	1.18E-07	1.77E-07		
Xylenes (isomers and mixture)						6.33E-03	
HMX	2.34E-07	3.17E-08				6.62E-03	1.50E-07
RDX	2.67E-07	1.76E-05	5.78E-05	1.24E-05	1.86E-05	1.14E-02	2.21E-06
2,4,6-Trinitrotoluene	5.96E-07	1.72E-06		3.06E-06	4.59E-06	8.14E-04	2.63E-06
2,4-Dinitrotoluene		6.36E-06	2.74E-06			2.46E-04	1.70E-07
2,6-Dinitrotoluene		6.36E-06	2.74E-06			1.94E-04	
Nitroglycerin		3.73E-06	2.04E-05			8.94E-05	
Nitroguanidine			9.45E-06			8.70E-05	
Tetryl	2.34E-07	3.95E-07				1.78E-05	
Diphenylamine						1.09E-05	
2-Nitrodiphenylamine						1.37E-05	
Dibutylphthalate		1.38E-06	9.99E-07			1.80E-03	
Diethylphthalate		6.00E-09				2.60E-05	
Aluminum	2.55E-02	2.99E-02	3.34E-01			5.34E-01	
Antimony		2.29E-04				1.69E-03	
Barium		5.84E-03				6.91E-02	1.21E-04
Chromium +		1.33E-04				1.40E-02	7.32E-05
Iron		2.99E-03	1.56E-02			2.78E-04	
Lead		3.21E-02	2.80E-02			1.30E-01	3.92E-04
Nickel		2.20E-03				2.68E-04	
Silicon		1.14E-02					
Tin		1.85E-03				1.41E-02	
Zirconium		3.05E-03				1.78E-04	

Padanaram: 24 Hour

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Aluminum						1.83E+00	
Copper						3.21E+00	
Manganese						5.43E-01	
Zinc (Casing)						4.19E-01	
Fiberglass						9.13E-01	
Plastic						9.13E-01	
Iron						8.34E+01	
							2.48E-04
+ Chromium consists of 90% trivalent chromium							1.60E-03
and 10% hexavalent chromium.							7.00E-08
							2.52E-07

Padanaram: Quarterly

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
1,3-Butadiene								
1,3,5-Trinitrobenzene	3.93E-08	1.31E-08	3.93E-08	4.42E-09	2.66E-10	3.33E-10	9.91E-10	4.95E-09
1,4-Dichlorobenzene								
1,6-Dinitropyrene	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
2-Nitronaphthalene	2.05E-07	6.81E-08	2.05E-07	2.30E-08	1.39E-09	1.73E-09	5.16E-09	2.58E-08
2-Nitrophenol	1.25E-06	4.15E-07	1.25E-06	1.40E-07	8.44E-09	1.06E-08	3.14E-08	1.57E-07
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	1.56E-04	5.19E-05	1.56E-04	1.75E-05	1.06E-06	1.32E-06	3.93E-06	1.96E-05
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	4.37E-05	1.45E-05	4.37E-05	4.91E-06	2.96E-07	3.70E-07	1.10E-06	5.50E-06
Benzo[a]pyrene	1.16E-06	3.87E-07	1.16E-06	1.31E-07	7.87E-09	9.84E-09	2.93E-08	1.47E-07
Benzo[b]fluoranthene								
Benz[c]acridine	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	2.54E-07	8.46E-08	2.54E-07	2.86E-08	1.72E-09	2.15E-09	6.40E-09	3.20E-08
Butyl benzyl phthalate								
Carbon monoxide	3.08E-03	1.02E-03	3.08E-03	3.46E-04	2.08E-05	2.60E-05	7.75E-05	3.87E-04
Chrysene								
Dibenzofurans	1.35E-04	4.48E-05	1.35E-04	1.51E-05	9.11E-07	1.14E-06	3.39E-06	1.70E-05
Dibenz[a,h]anthracene	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Diethylenetriamine	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Dioctylsebacate	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	1.56E-04	5.19E-05	1.56E-04	1.75E-05	1.06E-06	1.32E-06	3.93E-06	1.96E-05
Isophoronedi-isocyanate	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Methane	1.15E-02	3.82E-03	1.15E-02	1.29E-03	7.77E-05	9.72E-05	2.89E-04	1.45E-03

Padanaram: Quarterly

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Naphthalene	3.96E-06	1.32E-06	3.96E-06	4.45E-07	2.68E-08	3.35E-08	9.98E-08	4.99E-07
Nitric oxide	1.93E-02	6.43E-03	1.93E-02	2.17E-03	1.31E-04	1.63E-04	4.87E-04	2.43E-03
Nitrogen dioxide	5.84E-03	1.94E-03	5.84E-03	6.57E-04	3.95E-05	4.94E-05	1.47E-04	7.35E-04
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	1.78E-06	5.94E-07	1.78E-06	2.01E-07	1.21E-08	1.51E-08	4.49E-08	2.25E-07
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	8.32E-02	2.77E-02	8.32E-02	9.36E-03	5.63E-04	7.04E-04	2.10E-03	1.05E-02
Phenanthrene								
Phenyldiisodecylphosphite	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Phenol	1.81E-05	6.01E-06	1.81E-05	2.03E-06	1.22E-07	1.53E-07	4.55E-07	2.28E-06
Picric acid								
Pyrene	4.69E-07	1.56E-07	4.69E-07	5.28E-08	3.17E-09	3.97E-09	1.18E-08	5.91E-08
Resorcinol	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Salicylic Acid	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Styrene								
Sulfur dioxide	1.97E-03	6.54E-04	1.97E-03	2.21E-04	1.33E-05	1.66E-05	4.95E-05	2.48E-04
TNMHC	1.75E-03	5.82E-04	1.75E-03	1.97E-04	1.18E-05	1.48E-05	4.41E-05	2.20E-04
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	7.80E-08	2.60E-08	7.80E-08	8.77E-09	5.28E-10	6.60E-10	1.96E-09	9.82E-09
Xylenes (isomers and mixture)								
HMX				1.61E-07			3.62E-08	2.87E-07
RDX				6.05E-07			1.36E-07	3.27E-07
2,4,6-Trinitrotoluene				4.36E-07			9.77E-08	7.32E-07
2,4-Dinitrotoluene	3.90E-05	1.30E-05	3.90E-05		2.64E-07	3.30E-07		
2,6-Dinitrotoluene	3.90E-05	1.30E-05	3.90E-05		2.64E-07	3.30E-07		
Nitroglycerin	3.12E-04	1.04E-04	3.12E-04		2.11E-06	2.64E-06		
Nitroguanidine	3.72E-04	1.24E-04	3.72E-04	9.21E-08	2.52E-06	3.15E-06	2.06E-08	
Tetryl				1.61E-07			3.62E-08	2.87E-07
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	4.68E-05	1.56E-05	4.68E-05		3.17E-07	3.96E-07		
Diethylphthalate								
Aluminum	2.78E-04	9.24E-05	2.78E-04	9.04E-03	1.88E-06	2.35E-06	2.02E-03	3.12E-02
Antimony								
Barium	1.69E-03	5.63E-04	1.69E-03	9.21E-05	1.15E-05	1.43E-05	2.06E-05	
Chromium +								
Iron								
Lead				1.83E-04			4.11E-05	
Nickel								
Silicon								
Tin	1.71E-03	5.69E-04	1.71E-03	9.30E-05	1.16E-05	1.44E-05	2.08E-05	
Zirconium								

Padanaram: Quarterly

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium								
and 10% hexavalent chromium.								

Padanaram: Quarterly

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09	2.75E-07	
1,3-Butadiene						6.80E-05	
1,3,5-Trinitrobenzene	4.95E-10	7.43E-10	6.19E-08	2.60E-09	3.91E-09	1.89E-06	
1,4-Dichlorobenzene						2.70E-06	
1,6-Dinitropyrene	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
2-Methyl naphthalene						8.60E-06	
2-Methylphenol						6.39E-06	
2-Naphthylamine	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
2-Nitronaphthalene	2.58E-09	3.87E-09	3.22E-07	1.35E-08	2.03E-08	6.10E-07	
2-Nitrophenol	1.57E-08	2.36E-08	1.96E-06	8.26E-08	1.24E-07		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
4-Nitrophenol						1.81E-06	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Acenaphthylene						2.65E-06	
Acetophenone						1.60E-06	
alpha,alpha-Dimethylphenethylamine						1.03E-05	
Ammonia	1.96E-06	2.95E-06	2.46E-04	1.03E-05	1.55E-05	3.03E-03	
Anthracene						1.62E-06	
Aromatics (VOs, including benzene)						7.47E-03	
Benzene	5.50E-07	8.26E-07	6.88E-05	2.89E-06	4.34E-06	1.35E-03	
Benzo[a]pyrene	1.47E-08	2.20E-08	1.83E-06	7.70E-08	1.16E-07	8.50E-07	
Benzo[b]fluoranthene						1.24E-06	
Benz[c]acridine	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Benzyl alcohol						9.92E-07	
Benzo[k]fluoranthene						9.95E-07	
Benz[a]anthracene	3.20E-09	4.80E-09	4.00E-07	1.68E-08	2.52E-08	4.89E-07	
Butyl benzyl phthalate						5.33E-06	
Carbon monoxide	3.87E-05	5.81E-05	4.84E-03	2.04E-04	3.05E-04	4.03E-01	
Chrysene						2.38E-06	
Dibenzofurans	1.70E-06	2.54E-06	2.12E-04	8.91E-06	1.34E-05	2.54E-06	
Dibenz[a,h]anthracene	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09	4.46E-06	
Diethylenetriamine	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Dimethyl phthalate						2.48E-06	
Di-n-octyl phthalate						1.73E-05	
Di-n-propyladipate	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Dioctylsebacate	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Di(2-ethylhexyl)phthalate						1.99E-05	
Ethyl benzene						1.06E-04	
Fluoranthene						4.33E-06	
Fluorene						2.55E-06	
Hexane						8.34E-05	
Hydrogen cyanide	1.96E-06	2.95E-06	2.46E-04	1.03E-05	1.55E-05	2.35E-02	
Isophoronedi-isocyanate	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Methane	1.45E-04	2.17E-04	1.81E-02	7.60E-04	1.14E-03	2.04E-02	

Padanaram: Quarterly

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Naphthalene	4.99E-08	7.48E-08	6.24E-06	2.62E-07	3.93E-07	3.12E-05	
Nitric oxide	2.43E-04	3.65E-04	3.04E-02	1.28E-03	1.92E-03	2.53E-02	
Nitrogen dioxide	7.35E-05	1.10E-04	9.19E-03	3.86E-04	5.80E-04	1.39E-02	
N-Nitrosodiethylamine						1.24E-06	
N-Nitrosodiphenylamine	2.25E-08	3.37E-08	2.81E-06	1.18E-07	1.77E-07	4.30E-06	
Olefins (VOs)						6.87E-03	
Parafins (VOs)						8.80E-04	
Particulates (PM-10)	1.05E-03	1.57E-03	1.31E-01	5.51E-03	8.26E-03	2.49E+00	3.53E-02
Phenanthrene						5.59E-06	
Phenyldiisodecylphosphite	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Phenol	2.28E-07	3.41E-07	2.84E-05	1.20E-06	1.79E-06	1.89E-05	
Picric acid						5.18E-07	
Pyrene	5.91E-09	8.86E-09	7.39E-07	3.11E-08	4.66E-08	3.41E-06	
Resorcinol	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Salicylic Acid	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Styrene						4.44E-03	
Sulfur dioxide	2.48E-05	3.71E-05	3.09E-03	1.30E-04	1.95E-04	2.31E-03	
TNMHC	2.20E-05	3.30E-05	2.75E-03	1.16E-04	1.74E-04	1.64E-02	
TO-12 (TOT.ORGANICS,C2-C15)						2.55E-02	
Toluene						6.92E-04	
Triacetin	9.82E-10	1.47E-09	1.23E-07	5.16E-09	7.74E-09		
Xylenes (isomers and mixture)						5.62E-04	
HMX	2.87E-08	3.89E-09				1.45E-03	1.51E-09
RDX	3.27E-08	2.17E-06	3.55E-06	5.42E-07	8.13E-07	2.49E-03	2.23E-08
2,4,6-Trinitrotoluene	7.32E-08	2.11E-07		1.34E-07	2.01E-07	1.78E-04	2.65E-08
2,4-Dinitrotoluene		7.81E-07	1.68E-07			5.39E-05	1.71E-09
2,6-Dinitrotoluene		7.81E-07	1.68E-07			4.25E-05	
Nitroglycerin		4.58E-07	1.25E-06			1.96E-05	
Nitroguanidine			5.80E-07			1.91E-05	
Tetryl	2.87E-08	4.85E-08				3.91E-06	
Diphenylamine						2.38E-06	
2-Nitrodiphenylamine						3.01E-06	
Dibutylphthalate		1.69E-07	6.13E-08			3.94E-04	
Diethylphthalate		7.37E-10				5.70E-06	
Aluminum	3.12E-03	3.67E-03	2.05E-02			1.17E-01	
Antimony		2.81E-05				3.71E-04	
Barium		7.16E-04				1.51E-02	1.22E-06
Chromium +		1.64E-05				3.08E-03	7.37E-07
Iron		3.67E-04	9.55E-04			6.09E-05	
Lead		3.93E-03	1.72E-03			2.84E-02	3.95E-06
Nickel		2.70E-04				5.87E-05	
Silicon		1.40E-03					
Tin		2.27E-04				3.09E-03	
Zirconium		3.74E-04				3.91E-05	

Padanaram: Quarterly

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Aluminum						4.00E-01	
Copper						7.03E-01	
Manganese						1.19E-01	
Zinc (Casing)						9.19E-02	
Fiberglass						2.00E-01	
Plastic						2.00E-01	
Iron						1.83E+01	
							2.50E-06
+ Chromium consists of 90% trivalent chromium							1.61E-05
and 10% hexavalent chromium.							7.05E-10
							2.54E-09

Padanaram: Annual

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
1-Nitropyrene	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
1,3-Butadiene								
1,3,5-Trinitrobenzene	9.83E-09	3.27E-09	9.83E-09	1.11E-09	6.65E-11	8.32E-11	2.48E-10	1.24E-09
1,4-Dichlorobenzene								
1,6-Dinitropyrene	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
2-Methyl naphthalene								
2-Methylphenol								
2-Naphthylamine	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
2-Nitronaphthalene	5.12E-08	1.70E-08	5.12E-08	5.75E-09	3.46E-10	4.33E-10	1.29E-09	6.45E-09
2-Nitrophenol	3.12E-07	1.04E-07	3.12E-07	3.51E-08	2.11E-09	2.64E-09	7.86E-09	3.93E-08
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
4-Nitrophenol								
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Acenaphthylene								
Acetophenone								
alpha,alpha-Dimethylphenethylamine								
Ammonia	3.90E-05	1.30E-05	3.90E-05	4.39E-06	2.64E-07	3.30E-07	9.82E-07	4.91E-06
Anthracene								
Aromatics (VOs, including benzene)								
Benzene	1.09E-05	3.64E-06	1.09E-05	1.23E-06	7.39E-08	9.24E-08	2.75E-07	1.38E-06
Benzo[a]pyrene	2.91E-07	9.68E-08	2.91E-07	3.27E-08	1.97E-09	2.46E-09	7.33E-09	3.66E-08
Benzo[b]fluoranthene								
Benz[c]acridine	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Benzyl alcohol								
Benzo[k]fluoranthene								
Benz[a]anthracene	6.35E-08	2.11E-08	6.35E-08	7.14E-09	4.30E-10	5.37E-10	1.60E-09	8.00E-09
Butyl benzyl phthalate								
Carbon monoxide	7.69E-04	2.56E-04	7.69E-04	8.65E-05	5.20E-06	6.50E-06	1.94E-05	9.68E-05
Chrysene								
Dibenzofurans	3.37E-05	1.12E-05	3.37E-05	3.79E-06	2.28E-07	2.85E-07	8.48E-07	4.24E-06
Dibenz[a,h]anthracene	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Diethylenetriamine	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Dimethyl phthalate								
Di-n-octyl phthalate								
Di-n-propyladipate	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Dioctylsebacate	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Di(2-ethylhexyl)phthalate								
Ethyl benzene								
Fluoranthene								
Fluorene								
Hexane								
Hydrogen cyanide	3.90E-05	1.30E-05	3.90E-05	4.39E-06	2.64E-07	3.30E-07	9.82E-07	4.91E-06
Isophoronedi-isocyanate	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Methane	2.87E-03	9.56E-04	2.87E-03	3.23E-04	1.94E-05	2.43E-05	7.23E-05	3.62E-04

Padanaram: Annual

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Naphthalene	9.90E-07	3.30E-07	9.90E-07	1.11E-07	6.70E-09	8.37E-09	2.49E-08	1.25E-07
Nitric oxide	4.83E-03	1.61E-03	4.83E-03	5.43E-04	3.27E-05	4.09E-05	1.22E-04	6.08E-04
Nitrogen dioxide	1.46E-03	4.86E-04	1.46E-03	1.64E-04	9.88E-06	1.23E-05	3.68E-05	1.84E-04
N-Nitrosodiethylamine								
N-Nitrosodiphenylamine	4.46E-07	1.48E-07	4.46E-07	5.02E-08	3.02E-09	3.77E-09	1.12E-08	5.62E-08
Olefins (VOs)								
Parafins (VOs)								
Particulates (PM-10)	2.08E-02	6.92E-03	2.08E-02	2.34E-03	1.41E-04	1.76E-04	5.24E-04	2.62E-03
Phenanthrene								
Phenyldiisodecylphosphite	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Phenol	4.52E-06	1.50E-06	4.52E-06	5.08E-07	3.06E-08	3.82E-08	1.14E-07	5.69E-07
Picric acid								
Pyrene	1.17E-07	3.90E-08	1.17E-07	1.32E-08	7.94E-10	9.92E-10	2.95E-09	1.48E-08
Resorcinol	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Salicylic Acid	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Styrene								
Sulfur dioxide	4.91E-04	1.64E-04	4.91E-04	5.53E-05	3.33E-06	4.16E-06	1.24E-05	6.19E-05
TNMHC	4.37E-04	1.46E-04	4.37E-04	4.92E-05	2.96E-06	3.70E-06	1.10E-05	5.51E-05
TO-12 (TOT.ORGANICS,C2-C15)								
Toluene								
Triacetin	1.95E-08	6.49E-09	1.95E-08	2.19E-09	1.32E-10	1.65E-10	4.91E-10	2.46E-09
Xylenes (isomers and mixture)								
HMX				4.04E-08			9.04E-09	7.17E-08
RDX				1.51E-07			3.39E-08	8.18E-08
2,4,6-Trinitrotoluene				1.09E-07			2.44E-08	1.83E-07
2,4-Dinitrotoluene	9.75E-06	3.24E-06	9.75E-06		6.60E-08	8.25E-08		
2,6-Dinitrotoluene	9.75E-06	3.24E-06	9.75E-06		6.60E-08	8.25E-08		
Nitroglycerin	7.80E-05	2.60E-05	7.80E-05		5.28E-07	6.60E-07		
Nitroguanidine	9.30E-05	3.10E-05	9.30E-05	2.30E-08	6.29E-07	7.87E-07	5.16E-09	
Tetryl				4.04E-08			9.04E-09	7.17E-08
Diphenylamine								
2-Nitrodiphenylamine								
Dibutylphthalate	1.17E-05	3.89E-06	1.17E-05		7.92E-08	9.90E-08		
Diethylphthalate								
Aluminum	6.94E-05	2.31E-05	6.94E-05	2.26E-03	4.70E-07	5.87E-07	5.06E-04	7.81E-03
Antimony								
Barium	4.23E-04	1.41E-04	4.23E-04	2.30E-05	2.86E-06	3.58E-06	5.16E-06	
Chromium +								
Iron								
Lead				4.58E-05			1.03E-05	
Nickel								
Silicon								
Tin	4.27E-04	1.42E-04	4.27E-04	2.32E-05	2.89E-06	3.61E-06	5.21E-06	
Zirconium								

Padanaram: Annual

Contaminant	3a-ABG	3b-ABG	3c-ABG	6-ABG	7-ABG	8-ABG	9-ABG	10-ABG
Aluminum								
Copper								
Manganese								
Zinc (Casing)								
Fiberglass								
Plastic								
Iron								
+ Chromium consists of 90% trivalent chromium and 10% hexavalent chromium.								

Padanaram: Annual

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
1-Nitropyrene	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09	6.89E-08	
1,3-Butadiene						1.70E-05	
1,3,5-Trinitrobenzene	1.24E-10	1.86E-10	1.55E-08	6.51E-10	9.76E-10	4.73E-07	
1,4-Dichlorobenzene						6.74E-07	
1,6-Dinitropyrene	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
2-Methyl naphthalene						2.15E-06	
2-Methylphenol						1.60E-06	
2-Naphthylamine	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
2-Nitronaphthalene	6.45E-10	9.67E-10	8.06E-08	3.39E-09	5.08E-09	1.52E-07	
2-Nitrophenol	3.93E-09	5.89E-09	4.91E-07	2.07E-08	3.10E-08		
2,2'-Methylene bis(4-methyl-6-t-butyl phenol)	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
4-Nitrophenol						4.54E-07	
5-Ethyl-1,3-diglycidyl-5-methylhydantoin diepoxide	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Acenaphthylene						6.63E-07	
Acetophenone						3.99E-07	
alpha,alpha-Dimethylphenethylamine						2.57E-06	
Ammonia	4.91E-07	7.37E-07	6.14E-05	2.58E-06	3.87E-06	7.57E-04	
Anthracene						4.04E-07	
Aromatics (VOs, including benzene)						1.87E-03	
Benzene	1.38E-07	2.06E-07	1.72E-05	7.23E-07	1.08E-06	3.37E-04	
Benzo[a]pyrene	3.66E-09	5.49E-09	4.58E-07	1.93E-08	2.89E-08	2.13E-07	
Benzo[b]fluoranthene						3.11E-07	
Benz[c]acridine	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Benzyl alcohol						2.48E-07	
Benzo[k]fluoranthene						2.49E-07	
Benz[a]anthracene	8.00E-10	1.20E-09	1.00E-07	4.20E-09	6.31E-09	1.22E-07	
Butyl benzyl phthalate						1.33E-06	
Carbon monoxide	9.68E-06	1.45E-05	1.21E-03	5.09E-05	7.63E-05	1.01E-01	
Chrysene						5.96E-07	
Dibenzofurans	4.24E-07	6.36E-07	5.30E-05	2.23E-06	3.34E-06	6.35E-07	
Dibenz[a,h]anthracene	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09	1.11E-06	
Diethylenetriamine	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Dimethyl phthalate						6.21E-07	
Di-n-octyl phthalate						4.31E-06	
Di-n-propyladipate	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Dioctylsebacate	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Di(2-ethylhexyl)phthalate						4.98E-06	
Ethyl benzene						2.66E-05	
Fluoranthene						1.08E-06	
Fluorene						6.38E-07	
Hexane						2.08E-05	
Hydrogen cyanide	4.91E-07	7.37E-07	6.14E-05	2.58E-06	3.87E-06	5.88E-03	
Isophoronedi-isocyanate	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Methane	3.62E-05	5.43E-05	4.52E-03	1.90E-04	2.85E-04	5.10E-03	

Padanaram: Annual

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Naphthalene	1.25E-08	1.87E-08	1.56E-06	6.55E-08	9.83E-08	7.81E-06	
Nitric oxide	6.08E-05	9.13E-05	7.61E-03	3.20E-04	4.80E-04	6.33E-03	
Nitrogen dioxide	1.84E-05	2.76E-05	2.30E-03	9.66E-05	1.45E-04	3.47E-03	
N-Nitrosodiethylamine						3.11E-07	
N-Nitrosodiphenylamine	5.62E-09	8.43E-09	7.02E-07	2.95E-08	4.43E-08	1.08E-06	
Olefins (VOs)						1.72E-03	
Parafins (VOs)						2.20E-04	
Particulates (PM-10)	2.62E-04	3.93E-04	3.27E-02	1.38E-03	2.07E-03	6.22E-01	1.41E-01
Phenanthrene						1.40E-06	
Phenyldiisodecylphosphite	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Phenol	5.69E-08	8.53E-08	7.11E-06	2.99E-07	4.48E-07	4.73E-06	
Picric acid						1.30E-07	
Pyrene	1.48E-09	2.22E-09	1.85E-07	7.76E-09	1.16E-08	8.51E-07	
Resorcinol	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Salicylic Acid	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Styrene						1.11E-03	
Sulfur dioxide	6.19E-06	9.28E-06	7.74E-04	3.25E-05	4.88E-05	5.78E-04	
TNMHC	5.51E-06	8.26E-06	6.88E-04	2.89E-05	4.34E-05	4.11E-03	
TO-12 (TOT.ORGANICS,C2-C15)						6.38E-03	
Toluene						1.73E-04	
Triacetin	2.46E-10	3.68E-10	3.07E-08	1.29E-09	1.94E-09		
Xylenes (isomers and mixture)						1.41E-04	
HMX	7.17E-09	9.73E-10				3.63E-04	6.05E-09
RDX	8.18E-09	5.42E-07	8.87E-07	1.36E-07	2.03E-07	6.22E-04	8.91E-08
2,4,6-Trinitrotoluene	1.83E-08	5.27E-08		3.36E-08	5.03E-08	4.46E-05	1.06E-07
2,4-Dinitrotoluene		1.95E-07	4.21E-08			1.35E-05	6.85E-09
2,6-Dinitrotoluene		1.95E-07	4.21E-08			1.06E-05	
Nitroglycerin		1.15E-07	3.13E-07			4.90E-06	
Nitroguanidine			1.45E-07			4.77E-06	
Tetryl	7.17E-09	1.21E-08				9.77E-07	
Diphenylamine						5.96E-07	
2-Nitrodiphenylamine						7.52E-07	
Dibutylphthalate		4.24E-08	1.53E-08			9.85E-05	
Diethylphthalate		1.84E-10				1.43E-06	
Aluminum	7.81E-04	9.17E-04	5.13E-03			2.93E-02	
Antimony		7.04E-06				9.28E-05	
Barium		1.79E-04				3.78E-03	4.89E-06
Chromium +		4.09E-06				7.70E-04	2.95E-06
Iron		9.17E-05	2.39E-04			1.52E-05	
Lead		9.84E-04	4.30E-04			7.10E-03	1.58E-05
Nickel		6.74E-05				1.47E-05	
Silicon		3.49E-04					
Tin		5.67E-05				7.72E-04	
Zirconium		9.36E-05				9.77E-06	

Padanaram: Annual

Contaminant	11-ABG	12-ABG	13-ABG	3a-ORR	3b-ORR	3-DG	Wind Erosion
Aluminum						1.00E-01	
Copper						1.76E-01	
Manganese						2.97E-02	
Zinc (Casing)						2.30E-02	
Fiberglass						5.00E-02	
Plastic						5.00E-02	
Iron						4.57E+00	
							1.00E-05
+ Chromium consists of 90% trivalent chromium							6.46E-05
and 10% hexavalent chromium.							2.82E-09
							1.02E-08

APPENDIX D-10

COMPARISONS OF CUMULATIVE AVERAGING PERIOD IMPACT CONCENTRATIONS ($\mu g/m^3$) TO APPLICABLE AIR QUALITY STANDARDS AND IDEM AMBIENT HAP CRITERIA FOR ALL SHORT TERM AND LONG TERM CONCURRENT TREATMENT SCENARIOS

BOUNDARY RECEPTORS

1-Short Term Scenario Boundary: 1 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	4.00E+04	8.78E+01	2.68E+02	4.66E+02	5.27E+02	2.13E+02
Nitrogen dioxide		4.99E+00	1.48E+01	2.10E+01	2.30E+01	1.27E+01
Particulates (PM-10)		7.09E+02	2.15E+03	3.68E+03	4.15E+03	1.72E+03
Sulfur dioxide		1.33E+00	3.80E+00	3.63E+00	3.57E+00	3.61E+00
Lead **		4.91E+00	1.50E+01	2.52E+01	2.83E+01	1.21E+01
Indiana HAPs						
1,3-Butadiene		2.44E-02	7.45E-02	1.30E-01	1.47E-01	5.91E-02
1,4-Dichlorobenzene		4.72E-04	1.44E-03	2.52E-03	2.85E-03	1.14E-03
Benzene		4.17E-01	1.27E+00	2.18E+00	2.46E+00	1.01E+00
Dimethyl phthalate		5.76E-04	1.76E-03	3.08E-03	3.48E-03	1.40E-03
Ethyl benzene		4.02E-02	1.23E-01	2.15E-01	2.43E-01	9.75E-02
Hexane		3.15E-02	9.63E-02	1.68E-01	1.90E-01	7.63E-02
Hydrogen cyanide		5.90E+00	1.80E+01	3.14E+01	3.55E+01	1.43E+01
Naphthalene		1.30E-02	3.94E-02	6.50E-02	7.28E-02	3.20E-02
Phenol		1.23E-02	3.60E-02	4.45E-02	4.71E-02	3.22E-02
Styrene		1.75E+00	5.34E+00	9.34E+00	1.06E+01	4.23E+00
Toluene		2.63E-01	8.03E-01	1.40E+00	1.59E+00	6.37E-01
Xylenes (isomers and mixture)		2.26E-01	6.91E-01	1.21E+00	1.37E+00	5.48E-01
Dinitrotoluene		1.58E-02	4.83E-02	8.41E-02	9.51E-02	3.83E-02
Dibutylphthalate		6.42E-02	1.96E-01	3.43E-01	3.88E-01	1.56E-01
Antimony		6.16E-02	1.88E-01	3.25E-01	3.67E-01	1.50E-01
Total Chromium		5.03E-01	1.54E+00	2.68E+00	3.04E+00	1.22E+00
Lead		4.91E+00	1.50E+01	2.52E+01	2.83E+01	1.21E+01
Nickel		2.03E-02	6.20E-02	6.76E-02	6.95E-02	5.72E-02
Manganese		5.58E-02	1.69E-01	8.53E-02	6.07E-02	1.76E-01
Arsenic		8.92E-04	2.08E-03	2.56E-03	3.04E-03	1.63E-03
Cadmium		6.10E-03	1.42E-02	1.75E-02	2.08E-02	1.12E-02
Mercury		2.52E-07	5.87E-07	7.23E-07	8.57E-07	4.60E-07

1-Short Term Scenario Boundary: 3 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		2.68E+01	8.17E+01	1.41E+02	1.59E+02	6.51E+01
Nitrogen dioxide		2.33E+00	6.74E+00	7.74E+00	8.04E+00	6.15E+00
Particulates (PM-10)		2.31E+02	6.94E+02	1.14E+03	1.29E+03	5.61E+02
Sulfur dioxide	1.30E+03	9.19E-01	2.57E+00	1.98E+00	1.79E+00	2.54E+00
Lead **		1.64E+00	5.01E+00	7.81E+00	8.67E+00	4.16E+00
Indiana HAPs						
1,3-Butadiene		7.32E-03	2.24E-02	3.91E-02	4.42E-02	1.77E-02
1,4-Dichlorobenzene		1.41E-04	4.32E-04	7.56E-04	8.55E-04	3.43E-04
Benzene		1.32E-01	4.00E-01	6.66E-01	7.47E-01	3.24E-01
Dimethyl phthalate		1.73E-04	5.28E-04	9.23E-04	1.04E-03	4.19E-04
Ethyl benzene		1.21E-02	3.69E-02	6.45E-02	7.30E-02	2.93E-02
Hexane		9.45E-03	2.89E-02	5.05E-02	5.71E-02	2.29E-02
Hydrogen cyanide		1.78E+00	5.45E+00	9.45E+00	1.07E+01	4.33E+00
Naphthalene		4.59E-03	1.37E-02	2.07E-02	2.28E-02	1.15E-02
Phenol		6.86E-03	1.95E-02	1.88E-02	1.85E-02	1.85E-02
Styrene		5.24E-01	1.60E+00	2.80E+00	3.17E+00	1.27E+00
Toluene		7.88E-02	2.41E-01	4.21E-01	4.77E-01	1.91E-01
Xylenes (isomers and mixture)		6.78E-02	2.07E-01	3.62E-01	4.10E-01	1.64E-01
Dinitrotoluene		4.79E-03	1.46E-02	2.53E-02	2.86E-02	1.17E-02
Dibutylphthalate		1.93E-02	5.89E-02	1.03E-01	1.16E-01	2.97E+01
Antimony		1.92E-02	5.85E-02	9.85E-02	1.11E-01	4.72E-02
Total Chromium		1.51E-01	4.63E-01	8.06E-01	9.11E-01	3.67E-01
Lead		1.64E+00	5.01E+00	7.81E+00	8.67E+00	4.16E+00
Nickel		1.26E-02	3.82E-02	3.02E-02	2.79E-02	3.76E-02
Manganese		5.82E+00	1.78E+01	3.11E+01	3.52E+01	1.41E+01
Arsenic		8.03E-04	1.87E-03	2.31E-03	2.73E-03	1.47E-03
Cadmium		5.49E-03	1.28E-02	1.58E-02	1.87E-02	1.00E-02
Mercury		2.26E-07	5.29E-07	6.51E-07	7.71E-07	4.14E-07

1-Short Term Scenario Boundary: 8 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	1.00E+04	8.06E+00	2.45E+01	4.14E+01	4.66E+01	1.97E+01
Nitrogen dioxide		1.16E+00	3.35E+00	3.03E+00	2.94E+00	3.22E+00
Particulates (PM-10)		7.44E+01	2.25E+02	3.51E+02	3.87E+02	1.83E+02
Sulfur dioxide		5.67E-01	1.61E+00	1.06E+00	8.90E-01	1.63E+00
Lead **		5.98E-01	1.83E+00	2.46E+00	2.66E+00	1.59E+00
Indiana HAPs						
1,3-Butadiene	1.10E+04	2.13E-03	6.52E-03	1.14E-02	1.29E-02	5.17E-03
1,4-Dichlorobenzene	2.25E+03	4.13E-05	1.26E-04	2.20E-04	2.49E-04	1.00E-04
Benzene	1.60E+01	4.24E-02	1.28E-01	2.01E-01	2.23E-01	1.06E-01
Dimethyl phthalate	2.50E+01	5.04E-05	1.54E-04	2.69E-04	3.05E-04	1.22E-04
Ethyl benzene	2.18E+03	3.52E-03	1.08E-02	1.88E-02	2.13E-02	8.53E-03
Hexane	9.00E+03	2.76E-03	8.43E-03	1.47E-02	1.67E-02	6.68E-03
Hydrogen cyanide	2.50E+01	5.28E-01	1.61E+00	2.77E+00	3.13E+00	1.29E+00
Naphthalene	2.50E+02	1.73E-03	5.13E-03	6.66E-03	7.13E-03	4.53E-03
Phenol	9.50E+01	3.82E-03	1.10E-02	8.42E-03	7.64E-03	1.08E-02
Styrene	2.10E+03	1.53E-01	4.67E-01	8.17E-01	9.24E-01	3.71E-01
Toluene	3.75E+03	2.30E-02	7.03E-02	1.23E-01	1.39E-01	5.57E-02
Xylenes (isomers and mixture)	2.18E+03	1.98E-02	6.05E-02	1.06E-01	1.20E-01	4.79E-02
Dinitrotoluene	7.50E+00	1.43E-03	4.38E-03	7.44E-03	8.38E-03	3.52E-03
Dibutylphthalate	2.50E+01	5.63E-03	1.72E-02	3.00E-02	3.40E-02	1.12E+01
Antimony	2.50E+00	6.08E-03	1.86E-02	2.95E-02	3.29E-02	1.53E-02
Total Chromium	2.50E+00	4.44E-02	1.36E-01	2.36E-01	2.66E-01	1.08E-01
Lead	2.50E-01	**5.98E-01**	**1.83E+00**	**2.46E+00**	**2.66E+00**	**1.59E+00**
Nickel	5.00E+00	8.38E-03	2.55E-02	1.60E-02	1.33E-02	2.58E-02
Manganese	2.50E+01	1.70E+00	5.19E+00	9.06E+00	1.03E+01	4.11E+00
Arsenic	2.50E+00	2.63E-04	7.86E-04	1.17E-03	1.03E-03	4.76E-04
Cadmium	2.50E-02	1.70E-03	5.08E-03	7.58E-03	6.62E-03	3.07E-03
Mercury	5.00E-01	7.41E-08	2.22E-07	3.31E-07	2.89E-07	1.34E-07

1-Short Term Scenario Boundary: 24 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		1.55E+00	4.72E+00	7.91E+00	8.89E+00	3.81E+00
Nitrogen dioxide		2.52E-01	7.33E-01	6.25E-01	5.93E-01	7.11E-01
Particulates (PM-10)	1.50E+02	1.57E+01	4.78E+01	7.71E+01	7.89E+01	4.01E+01
Sulfur dioxide	3.65E+02	1.27E-01	3.66E-01	2.31E-01	1.90E-01	3.71E-01
Lead **		1.18E-01	3.59E-01	4.75E-01	5.11E-01	3.15E-01
Indiana HAPs						
1,3-Butadiene		4.06E-04	1.24E-03	2.17E-03	2.46E-03	9.85E-04
1,4-Dichlorobenzene		7.86E-06	2.40E-05	4.20E-05	4.75E-05	1.90E-05
Benzene		8.33E-03	2.52E-02	3.86E-02	4.27E-02	2.10E-02
Dimethyl phthalate		9.60E-06	2.94E-05	5.13E-05	5.81E-05	2.33E-05
Ethyl benzene		6.71E-04	2.05E-03	3.58E-03	4.05E-03	1.63E-03
Hexane		5.25E-04	1.61E-03	2.80E-03	3.17E-03	1.27E-03
Hydrogen cyanide		1.01E-01	3.09E-01	5.28E-01	5.96E-01	2.47E-01
Naphthalene		3.55E-04	1.05E-03	1.31E-03	1.39E-03	9.42E-04
Phenol		8.45E-04	2.44E-03	1.78E-03	1.58E-03	2.43E-03
Styrene		2.91E-02	8.90E-02	1.56E-01	1.76E-01	7.06E-02
Toluene		4.38E-03	1.34E-02	2.34E-02	2.65E-02	1.06E-02
Xylenes (isomers and mixture)		3.77E-03	1.15E-02	2.01E-02	2.28E-02	9.13E-03
Dinitrotoluene		2.74E-04	8.37E-04	1.42E-03	1.60E-03	6.72E-04
Dibutylphthalate		1.07E-03	3.28E-03	5.72E-03	6.47E-03	2.27E+00
Antimony		1.16E-03	3.54E-03	5.61E-03	6.26E-03	2.92E-03
Total Chromium		8.49E-03	2.60E-02	4.51E-02	5.08E-02	2.06E-02
Lead		1.18E-01	3.59E-01	4.75E-01	5.11E-01	3.15E-01
Nickel		1.60E-03	4.85E-03	3.05E-03	2.53E-03	4.92E-03
Manganese		3.23E-01	9.88E-01	1.73E+00	1.95E+00	7.83E-01
Arsenic		1.32E-04	4.18E-04	9.02E-04	5.35E-04	3.62E-04
Cadmium		8.52E-04	2.70E-03	5.82E-03	3.46E-03	2.34E-03
Mercury		3.72E-08	1.18E-07	2.54E-07	1.51E-07	1.02E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	4.00E+04	8.78E+01	2.68E+02	4.66E+02	5.27E+02	2.13E+02
Nitrogen dioxide		4.99E+00	1.48E+01	2.11E+01	2.30E+01	1.27E+01
Particulates (PM-10)		7.09E+02	2.15E+03	3.68E+03	4.15E+03	1.72E+03
Sulfur dioxide		1.33E+00	3.80E+00	3.63E+00	3.57E+00	3.64E+00
Lead **		4.76E+00	1.45E+01	2.49E+01	2.81E+01	1.16E+01
Indiana HAPs						
1,3-Butadiene		2.44E-02	7.45E-02	1.30E-01	1.47E-01	5.91E-02
1,4-Dichlorobenzene		4.72E-04	1.44E-03	2.52E-03	2.85E-03	1.14E-03
Benzene		4.17E-01	1.27E+00	2.18E+00	2.46E+00	1.02E+00
Dimethyl phthalate		5.76E-04	1.76E-03	3.08E-03	3.48E-03	1.40E-03
Ethyl benzene		4.02E-02	1.23E-01	2.15E-01	2.43E-01	9.75E-02
Hexane		3.15E-02	9.63E-02	1.68E-01	1.90E-01	7.63E-02
Hydrogen cyanide		5.90E+00	1.80E+01	3.14E+01	3.55E+01	1.43E+01
Naphthalene		1.30E-02	3.94E-02	6.50E-02	7.28E-02	3.21E-02
Phenol		1.23E-02	3.60E-02	4.46E-02	4.71E-02	3.23E-02
Styrene		1.75E+00	5.34E+00	9.34E+00	1.06E+01	4.23E+00
Toluene		2.63E-01	8.03E-01	1.40E+00	1.59E+00	6.37E-01
Xylenes (isomers and mixture)		2.26E-01	6.91E-01	1.21E+00	1.37E+00	5.48E-01
Dinitrotoluene		1.58E-02	4.83E-02	8.42E-02	9.51E-02	3.87E-02
Dibutylphthalate		6.43E-02	1.96E-01	3.43E-01	3.88E-01	1.56E-01
Antimony		6.05E-02	1.85E-01	3.23E-01	3.66E-01	1.47E-01
Total Chromium		5.02E-01	1.53E+00	2.68E+00	3.03E+00	1.22E+00
Lead		4.76E+00	1.45E+01	2.49E+01	2.81E+01	1.16E+01
Nickel		9.56E-03	2.92E-02	5.11E-02	5.78E-02	2.32E-02
Manganese		1.94E+01	5.93E+01	1.04E+02	1.17E+02	4.70E+01
Arsenic		8.92E-04	2.08E-03	2.56E-03	3.04E-03	1.63E-03
Cadmium		6.10E-03	1.42E-02	1.75E-02	2.08E-02	1.12E-02
Mercury		2.52E-07	5.87E-07	7.23E-07	8.57E-07	4.60E-07

2-Short Term Scenario Boundary: 3 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		2.68E+01	8.17E+01	1.41E+02	1.59E+02	6.51E+01
Nitrogen dioxide		2.33E+00	6.73E+00	7.74E+00	8.03E+00	6.15E+00
Particulates (PM-10)		2.31E+02	6.94E+02	1.14E+03	1.29E+03	5.61E+02
Sulfur dioxide	1.30E+03	9.17E-01	2.56E+00	1.97E+00	1.78E+00	2.54E+00
Lead **		1.50E+00	4.58E+00	7.59E+00	8.52E+00	3.71E+00
Indiana HAPs						
1,3-Butadiene		7.32E-03	2.24E-02	3.91E-02	4.42E-02	1.77E-02
1,4-Dichlorobenzene		1.41E-04	4.32E-04	7.56E-04	8.55E-04	3.43E-04
Benzene		1.32E-01	4.00E-01	6.66E-01	7.47E-01	3.24E-01
Dimethyl phthalate		1.73E-04	5.28E-04	9.23E-04	1.04E-03	4.19E-04
Ethyl benzene		1.21E-02	3.69E-02	6.45E-02	7.30E-02	2.93E-02
Hexane		9.45E-03	2.89E-02	5.05E-02	5.71E-02	2.29E-02
Hydrogen cyanide		1.78E+00	5.45E+00	9.45E+00	1.07E+01	4.33E+00
Naphthalene		4.58E-03	1.37E-02	2.07E-02	2.28E-02	1.15E-02
Phenol		6.85E-03	1.95E-02	1.88E-02	1.85E-02	1.85E-02
Styrene		5.24E-01	1.60E+00	2.80E+00	3.17E+00	1.27E+00
Toluene		7.88E-02	2.41E-01	4.21E-01	4.77E-01	1.91E-01
Xylenes (isomers and mixture)		6.78E-02	2.07E-01	3.62E-01	4.10E-01	1.64E-01
Dinitrotoluene		4.76E-03	1.45E-02	2.53E-02	2.85E-02	1.17E-02
Dibutylphthalate		1.93E-02	5.89E-02	1.03E-01	1.16E-01	4.68E-02
Antimony		1.81E-02	5.55E-02	9.69E-02	1.10E-01	4.40E-02
Total Chromium		1.51E-01	4.61E-01	8.05E-01	9.11E-01	3.65E-01
Lead		1.50E+00	4.58E+00	7.59E+00	8.52E+00	3.71E+00
Nickel		2.87E-03	8.77E-03	1.53E-02	1.73E-02	6.95E-03
Manganese		5.82E+00	1.78E+01	3.11E+01	3.52E+01	1.41E+01
Arsenic		8.03E-04	1.87E-03	2.31E-03	2.73E-03	1.47E-03
Cadmium		5.49E-03	1.28E-02	1.58E-02	1.87E-02	1.00E-02
Mercury		2.26E-07	5.29E-07	6.51E-07	7.71E-07	4.14E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	1.00E+04	8.06E+00	2.45E+01	4.14E+01	4.66E+01	1.97E+01
Nitrogen dioxide		1.16E+00	3.34E+00	3.03E+00	2.93E+00	3.22E+00
Particulates (PM-10)		7.43E+01	2.24E+02	3.51E+02	3.87E+02	1.83E+02
Sulfur dioxide		5.65E-01	1.61E+00	1.06E+00	8.88E-01	1.63E+00
Lead **		4.88E-01	1.49E+00	2.29E+00	2.54E+00	1.24E+00
Indiana HAPs						
1,3-Butadiene	1.10E+04	2.13E-03	6.52E-03	1.14E-02	1.29E-02	5.17E-03
1,4-Dichlorobenzene	2.25E+03	4.13E-05	1.26E-04	2.20E-04	2.49E-04	1.00E-04
Benzene	1.60E+01	4.24E-02	1.28E-01	2.01E-01	2.23E-01	1.06E-01
Dimethyl phthalate	2.50E+01	5.04E-05	1.54E-04	2.69E-04	3.05E-04	1.22E-04
Ethyl benzene	2.18E+03	3.52E-03	1.08E-02	1.88E-02	2.13E-02	8.53E-03
Hexane	9.00E+03	2.76E-03	8.43E-03	1.47E-02	1.67E-02	6.68E-03
Hydrogen cyanide	2.50E+01	5.28E-01	1.61E+00	2.77E+00	3.13E+00	1.29E+00
Naphthalene	2.50E+02	1.73E-03	5.12E-03	6.66E-03	7.13E-03	4.52E-03
Phenol	9.50E+01	3.81E-03	1.09E-02	8.41E-03	7.63E-03	1.08E-02
Styrene	2.10E+03	1.53E-01	4.67E-01	8.17E-01	9.24E-01	3.71E-01
Toluene	3.75E+03	2.30E-02	7.03E-02	1.23E-01	1.39E-01	5.57E-02
Xylenes (isomers and mixture)	2.18E+03	1.98E-02	6.05E-02	1.06E-01	1.20E-01	4.79E-02
Dinitrotoluene	7.50E+00	1.40E-03	4.28E-03	7.40E-03	8.34E-03	3.48E-03
Dibutylphthalate	2.50E+01	5.63E-03	1.72E-02	3.00E-02	3.40E-02	1.37E-02
Antimony	2.50E+00	5.29E-03	1.62E-02	2.83E-02	3.20E-02	1.28E-02
Total Chromium	2.50E+00	4.40E-02	1.34E-01	2.35E-01	2.66E-01	1.07E-01
Lead	2.50E-01	**4.88E-01**	**1.49E+00**	**2.29E+00**	**2.54E+00**	**1.24E+00**
Nickel	5.00E+00	8.37E-04	2.56E-03	4.47E-03	5.06E-03	2.03E-03
Manganese	2.50E+01	1.70E+00	5.19E+00	9.06E+00	1.03E+01	4.11E+00
Arsenic	2.50E+00	2.63E-04	7.86E-04	1.17E-03	1.03E-03	4.76E-04
Cadmium	2.50E-02	1.70E-03	5.08E-03	7.58E-03	6.62E-03	3.07E-03
Mercury	5.00E-01	7.41E-08	2.22E-07	3.31E-07	2.89E-07	1.34E-07

2-Short Term Scenario Boundary: 24 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		1.55E+00	4.72E+00	7.91E+00	8.89E+00	3.81E+00
Nitrogen dioxide		2.51E-01	7.31E-01	6.25E-01	5.92E-01	7.10E-01
Particulates (PM-10)	1.50E+02	1.57E+01	4.78E+01	7.71E+01	7.89E+01	4.01E+01
Sulfur dioxide	3.65E+02	1.27E-01	3.64E-01	2.31E-01	1.90E-01	3.70E-01
Lead **		9.68E-02	2.96E-01	4.43E-01	4.88E-01	2.49E-01
Indiana HAPs						
1,3-Butadiene		4.06E-04	1.24E-03	2.17E-03	2.46E-03	9.85E-04
1,4-Dichlorobenzene		7.86E-06	2.40E-05	4.20E-05	4.75E-05	1.90E-05
Benzene		8.32E-03	2.51E-02	3.86E-02	4.27E-02	2.10E-02
Dimethyl phthalate		9.60E-06	2.94E-05	5.13E-05	5.81E-05	2.33E-05
Ethyl benzene		6.71E-04	2.05E-03	3.58E-03	4.05E-03	1.63E-03
Hexane		5.25E-04	1.61E-03	2.80E-03	3.17E-03	1.27E-03
Hydrogen cyanide		1.01E-01	3.09E-01	5.28E-01	5.96E-01	2.47E-01
Naphthalene		3.54E-04	1.05E-03	1.31E-03	1.38E-03	9.41E-04
Phenol		8.42E-04	2.43E-03	1.78E-03	1.58E-03	2.43E-03
Styrene		2.91E-02	8.90E-02	1.56E-01	1.76E-01	7.06E-02
Toluene		4.38E-03	1.34E-02	2.34E-02	2.65E-02	1.06E-02
Xylenes (isomers and mixture)		3.77E-03	1.15E-02	2.01E-02	2.28E-02	9.13E-03
Dinitrotoluene		2.68E-04	8.17E-04	1.41E-03	1.59E-03	6.66E-04
Dibutylphthalate		1.07E-03	3.28E-03	5.72E-03	6.47E-03	2.61E-03
Antimony		1.01E-03	3.08E-03	5.39E-03	6.09E-03	2.44E-03
Total Chromium		8.40E-03	2.57E-02	4.49E-02	5.07E-02	2.04E-02
Lead		9.68E-02	2.96E-01	4.43E-01	4.88E-01	2.49E-01
Nickel		1.59E-04	4.87E-04	8.51E-04	9.63E-04	3.86E-04
Manganese		3.23E-01	9.88E-01	1.73E+00	1.95E+00	7.83E-01
Arsenic		1.32E-04	4.18E-04	9.02E-04	5.35E-04	3.62E-04
Cadmium		8.52E-04	2.70E-03	5.82E-03	3.46E-03	2.34E-03
Mercury		3.72E-08	1.18E-07	2.54E-07	1.51E-07	1.02E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	4.00E+04	8.77E+01	2.67E+02	4.67E+02	5.27E+02	2.13E+02
Nitrogen dioxide		4.80E+00	1.24E+01	2.20E+01	2.27E+01	1.26E+01
Particulates (PM-10)		7.06E+02	2.12E+03	3.69E+03	4.15E+03	1.72E+03
Sulfur dioxide		1.21E+00	2.27E+00	4.22E+00	3.39E+00	3.55E+00
Lead **		4.65E+00	1.42E+01	2.48E+01	2.80E+01	1.13E+01
Indiana HAPs						
1,3-Butadiene		2.44E-02	7.45E-02	1.30E-01	1.47E-01	5.91E-02
1,4-Dichlorobenzene		4.72E-04	1.44E-03	2.52E-03	2.85E-03	1.14E-03
Benzene		4.15E-01	1.25E+00	2.19E+00	2.46E+00	1.01E+00
Dimethyl phthalate		5.76E-04	1.76E-03	3.08E-03	3.48E-03	1.40E-03
Ethyl benzene		4.02E-02	1.23E-01	2.15E-01	2.43E-01	9.75E-02
Hexane		3.15E-02	9.63E-02	1.68E-01	1.90E-01	7.63E-02
Hydrogen cyanide		5.90E+00	1.80E+01	3.14E+01	3.55E+01	1.43E+01
Naphthalene		1.29E-02	3.74E-02	6.57E-02	7.26E-02	3.20E-02
Phenol		1.16E-02	2.67E-02	4.81E-02	4.60E-02	3.18E-02
Styrene		1.75E+00	5.34E+00	9.34E+00	1.06E+01	4.23E+00
Toluene		2.63E-01	8.03E-01	1.40E+00	1.59E+00	6.37E-01
Xylenes (isomers and mixture)		2.26E-01	6.91E-01	1.21E+00	1.37E+00	5.48E-01
Dinitrotoluene		2.21E-02	5.12E-02	1.04E-01	1.01E-01	6.22E-02
Dibutylphthalate		6.80E-02	1.98E-01	3.55E-01	3.92E-01	1.70E-01
Antimony		6.05E-02	1.85E-01	3.23E-01	3.66E-01	1.47E-01
Total Chromium		5.02E-01	1.53E+00	2.68E+00	3.03E+00	1.22E+00
Lead		4.65E+00	1.42E+01	2.48E+01	2.80E+01	1.13E+01
Nickel		9.56E-03	2.92E-02	5.11E-02	5.78E-02	2.32E-02
Manganese		1.94E+01	5.93E+01	1.04E+02	1.17E+02	4.70E+01
Arsenic		8.92E-04	2.08E-03	2.56E-03	3.04E-03	1.63E-03
Cadmium		6.10E-03	1.42E-02	1.75E-02	2.08E-02	1.12E-02
Mercury		2.52E-07	5.87E-07	7.23E-07	8.57E-07	4.60E-07

3-Short Term Scenario Boundary: 3 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		2.66E+01	8.04E+01	1.41E+02	1.58E+02	6.46E+01
Nitrogen dioxide		1.94E+00	4.41E+00	7.88E+00	7.56E+00	5.18E+00
Particulates (PM-10)		2.26E+02	6.63E+02	1.15E+03	1.28E+03	5.48E+02
Sulfur dioxide	1.30E+03	6.73E-01	1.12E+00	2.06E+00	1.49E+00	1.93E+00
Lead **		1.40E+00	4.28E+00	7.44E+00	8.41E+00	3.40E+00
Indiana HAPs						
1,3-Butadiene		7.32E-03	2.24E-02	3.91E-02	4.42E-02	1.77E-02
1,4-Dichlorobenzene		1.41E-04	4.32E-04	7.56E-04	8.55E-04	3.43E-04
Benzene		1.29E-01	3.81E-01	6.67E-01	7.43E-01	3.16E-01
Dimethyl phthalate		1.73E-04	5.28E-04	9.23E-04	1.04E-03	4.19E-04
Ethyl benzene		1.21E-02	3.69E-02	6.45E-02	7.30E-02	2.93E-02
Hexane		9.45E-03	2.89E-02	5.05E-02	5.71E-02	2.29E-02
Hydrogen cyanide		1.78E+00	5.41E+00	9.45E+00	1.07E+01	4.31E+00
Naphthalene		4.26E-03	1.18E-02	2.08E-02	2.24E-02	1.07E-02
Phenol		5.36E-03	1.07E-02	1.93E-02	1.67E-02	1.48E-02
Styrene		5.24E-01	1.60E+00	2.80E+00	3.17E+00	1.27E+00
Toluene		7.88E-02	2.41E-01	4.21E-01	4.77E-01	1.91E-01
Xylenes (isomers and mixture)		6.78E-02	2.07E-01	3.62E-01	4.10E-01	1.64E-01
Dinitrotoluene		8.49E-03	1.62E-02	3.72E-02	3.22E-02	2.57E-02
Dibutylphthalate		2.15E-02	6.00E-02	1.10E-01	1.19E-01	5.52E-02
Antimony		1.81E-02	5.55E-02	9.69E-02	1.10E-01	4.40E-02
Total Chromium		1.51E-01	4.61E-01	8.05E-01	9.11E-01	3.65E-01
Lead		1.40E+00	4.28E+00	7.44E+00	8.41E+00	3.40E+00
Nickel		2.87E-03	8.77E-03	1.53E-02	1.73E-02	6.95E-03
Manganese		5.82E+00	1.78E+01	3.11E+01	3.52E+01	1.41E+01
Arsenic		8.03E-04	1.87E-03	2.31E-03	2.73E-03	1.47E-03
Cadmium		5.49E-03	1.28E-02	1.58E-02	1.87E-02	1.00E-02
Mercury		2.26E-07	5.29E-07	6.51E-07	7.71E-07	4.14E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	1.00E+04	7.82E+00	2.36E+01	4.12E+01	4.63E+01	1.91E+01
Nitrogen dioxide		7.02E-01	1.47E+00	2.66E+00	2.42E+00	1.90E+00
Particulates (PM-10)		6.82E+01	1.99E+02	3.46E+02	3.80E+02	1.66E+02
Sulfur dioxide		2.82E-01	4.38E-01	8.26E-01	5.66E-01	8.05E-01
Lead **		4.11E-01	1.26E+00	2.17E+00	2.46E+00	1.00E+00
Indiana HAPs						
1,3-Butadiene	1.10E+04	2.13E-03	6.52E-03	1.14E-02	1.29E-02	5.17E-03
1,4-Dichlorobenze	2.25E+03	4.13E-05	1.26E-04	2.20E-04	2.49E-04	1.00E-04
Benzene	1.60E+01	3.86E-02	1.13E-01	1.97E-01	2.19E-01	9.52E-02
Dimethyl phthalat	2.50E+01	5.04E-05	1.54E-04	2.69E-04	3.05E-04	1.22E-04
Ethyl benzene	2.18E+03	3.52E-03	1.08E-02	1.88E-02	2.13E-02	8.53E-03
Hexane	9.00E+03	2.76E-03	8.43E-03	1.47E-02	1.67E-02	6.68E-03
Hydrogen cyanide	2.50E+01	5.21E-01	1.58E+00	2.76E+00	3.12E+00	1.26E+00
Naphthalene	2.50E+02	1.36E-03	3.59E-03	6.35E-03	6.70E-03	3.45E-03
Phenol	9.50E+01	2.08E-03	3.79E-03	6.99E-03	5.67E-03	5.79E-03
Styrene	2.10E+03	1.53E-01	4.67E-01	8.17E-01	9.24E-01	3.71E-01
Toluene	3.75E+03	2.30E-02	7.03E-02	1.23E-01	1.39E-01	5.57E-02
Xylenes (isomers	2.18E+03	1.98E-02	6.05E-02	1.06E-01	1.20E-01	4.79E-02
Dinitrotoluene	7.50E+00	3.03E-03	5.01E-03	1.26E-02	9.92E-03	9.60E-03
Dibutylphthalate	2.50E+01	6.61E-03	1.77E-02	3.32E-02	3.49E-02	1.74E-02
Antimony	2.50E+00	5.29E-03	1.62E-02	2.83E-02	3.20E-02	1.28E-02
Total Chromium	2.50E+00	4.40E-02	1.34E-01	2.35E-01	2.66E-01	1.07E-01
Lead	2.50E-01	**4.11E-01**	**1.26E+00**	**2.17E+00**	**2.46E+00**	**1.00E+00**
Nickel	5.00E+00	8.37E-04	2.56E-03	4.47E-03	5.06E-03	2.03E-03
Manganese	2.50E+01	1.70E+00	5.19E+00	9.06E+00	1.03E+01	4.11E+00
Arsenic	2.50E+00	2.63E-04	7.86E-04	1.17E-03	1.03E-03	4.76E-04
Cadmium	2.50E-02	1.70E-03	5.08E-03	7.58E-03	6.62E-03	3.07E-03
Mercury	5.00E-01	7.41E-08	2.22E-07	3.31E-07	2.89E-07	1.34E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		1.50E+00	4.49E+00	7.89E+00	8.84E+00	3.68E+00
Nitrogen dioxide		1.58E-01	2.91E-01	5.85E-01	4.84E-01	4.53E-01
Particulates (PM-10)	1.50E+02	1.45E+01	4.19E+01	7.66E+01	7.74E+01	3.66E+01
Sulfur dioxide	3.65E+02	6.89E-02	9.07E-02	2.06E-01	1.23E-01	2.11E-01
Lead **		7.85E-02	2.40E-01	4.15E-01	4.68E-01	1.91E-01
Indiana HAPs						
1,3-Butadiene		4.06E-04	1.24E-03	2.17E-03	2.46E-03	9.85E-04
1,4-Dichlorobenzene		7.86E-06	2.40E-05	4.20E-05	4.75E-05	1.90E-05
Benzene		7.56E-03	2.15E-02	3.83E-02	4.18E-02	1.89E-02
Dimethyl phthalate		9.60E-06	2.94E-05	5.13E-05	5.81E-05	2.33E-05
Ethyl benzene		6.71E-04	2.05E-03	3.58E-03	4.05E-03	1.63E-03
Hexane		5.25E-04	1.61E-03	2.80E-03	3.17E-03	1.27E-03
Hydrogen cyanide		9.96E-02	3.01E-01	5.28E-01	5.94E-01	2.42E-01
Naphthalene		2.78E-04	6.93E-04	1.27E-03	1.30E-03	7.31E-04
Phenol		4.90E-04	7.66E-04	1.63E-03	1.17E-03	1.45E-03
Styrene		2.91E-02	8.90E-02	1.56E-01	1.76E-01	7.06E-02
Toluene		4.38E-03	1.34E-02	2.34E-02	2.65E-02	1.06E-02
Xylenes (isomers and mixture)		3.77E-03	1.15E-02	2.01E-02	2.28E-02	9.13E-03
Dinitrotoluene		7.85E-04	1.05E-03	3.07E-03	2.09E-03	2.61E-03
Dibutylphthalate		1.38E-03	3.42E-03	6.72E-03	6.77E-03	3.78E-03
Antimony		1.01E-03	3.08E-03	5.39E-03	6.09E-03	2.44E-03
Total Chromium		8.40E-03	2.57E-02	4.49E-02	5.07E-02	2.04E-02
Lead		7.85E-02	2.40E-01	4.15E-01	4.68E-01	1.91E-01
Nickel		1.59E-04	4.87E-04	8.51E-04	9.63E-04	3.86E-04
Manganese		3.23E-01	9.88E-01	1.73E+00	1.95E+00	7.83E-01
Arsenic		1.32E-04	4.18E-04	9.02E-04	5.35E-04	3.62E-04
Cadmium		8.52E-04	2.70E-03	5.82E-03	3.46E-03	2.34E-03
Mercury		3.72E-08	1.18E-07	2.54E-07	1.51E-07	1.02E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	1.00E+04	8.75E+01	2.67E+02	4.66E+02	5.27E+02	2.12E+02
Nitrogen dioxide		4.96E+00	1.26E+01	2.24E+01	2.30E+01	1.28E+01
Particulates (PM-10)		7.08E+02	2.12E+03	3.70E+03	4.16E+03	1.72E+03
Sulfur dioxide		1.31E+00	2.44E+00	4.45E+00	3.62E+00	3.70E+00
Lead **		4.65E+00	1.42E+01	2.48E+01	2.80E+01	1.13E+01
Indiana HAPs						
1,3-Butadiene		2.44E-02	7.45E-02	1.30E-01	1.47E-01	5.91E-02
1,4-Dichlorobenzene		4.72E-04	1.44E-03	2.52E-03	2.85E-03	1.14E-03
Benzene		4.16E-01	1.25E+00	2.19E+00	2.46E+00	1.02E+00
Dimethyl phthalate		5.76E-04	1.76E-03	3.08E-03	3.48E-03	1.40E-03
Ethyl benzene		4.02E-02	1.23E-01	2.15E-01	2.43E-01	9.75E-02
Hexane		3.15E-02	9.63E-02	1.68E-01	1.90E-01	7.63E-02
Hydrogen cyanide		5.90E+00	1.80E+01	3.14E+01	3.55E+01	1.43E+01
Naphthalene		1.30E-02	3.76E-02	6.60E-02	7.29E-02	3.22E-02
Phenol		1.22E-02	2.77E-02	4.95E-02	4.74E-02	3.27E-02
Styrene		1.75E+00	5.34E+00	9.34E+00	1.06E+01	4.23E+00
Toluene		2.63E-01	8.03E-01	1.40E+00	1.59E+00	6.37E-01
Xylenes (isomers and mixture)		2.26E-01	6.91E-01	1.21E+00	1.37E+00	5.48E-01
Dinitrotoluene		2.21E-02	5.12E-02	1.04E-01	1.01E-01	6.22E-02
Dibutylphthalate		6.80E-02	1.98E-01	3.55E-01	3.92E-01	1.70E-01
Antimony		6.05E-02	1.85E-01	3.23E-01	3.66E-01	1.47E-01
Total Chromium		5.02E-01	1.53E+00	2.68E+00	3.03E+00	1.22E+00
Lead		4.65E+00	1.42E+01	2.48E+01	2.80E+01	1.13E+01
Nickel		9.56E-03	2.92E-02	5.11E-02	5.78E-02	2.32E-02
Manganese		1.94E+01	5.93E+01	1.04E+02	1.17E+02	4.70E+01
Arsenic		8.92E-04	2.08E-03	2.56E-03	3.04E-03	1.63E-03
Cadmium		6.10E-03	1.42E-02	1.75E-02	2.08E-02	1.12E-02
Mercury		2.52E-07	5.87E-07	7.23E-07	8.57E-07	4.60E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		2.65E+01	8.05E+01	1.40E+02	1.59E+02	6.42E+01
Nitrogen dioxide		1.78E+00	4.52E+00	7.26E+00	7.60E+00	4.29E+00
Particulates (PM-10)		2.24E+02	6.64E+02	1.14E+03	1.28E+03	5.36E+02
Sulfur dioxide	1.30E+03	5.77E-01	1.19E+00	1.68E+00	1.52E+00	1.38E+00
Lead **		1.40E+00	4.28E+00	7.44E+00	8.41E+00	3.40E+00
Indiana HAPs						
1,3-Butadiene		7.32E-03	2.24E-02	3.91E-02	4.42E-02	1.77E-02
1,4-Dichlorobenzene		1.41E-04	4.32E-04	7.56E-04	8.55E-04	3.43E-04
Benzene		1.27E-01	3.82E-01	6.62E-01	7.44E-01	3.08E-01
Dimethyl phthalate		1.73E-04	5.28E-04	9.23E-04	1.04E-03	4.19E-04
Ethyl benzene		1.21E-02	3.69E-02	6.45E-02	7.30E-02	2.93E-02
Hexane		9.45E-03	2.89E-02	5.05E-02	5.71E-02	2.29E-02
Hydrogen cyanide		1.77E+00	5.41E+00	9.44E+00	1.07E+01	4.30E+00
Naphthalene		4.14E-03	1.19E-02	2.03E-02	2.24E-02	1.00E-02
Phenol		4.78E-03	1.11E-02	1.70E-02	1.69E-02	1.15E-02
Styrene		5.24E-01	1.60E+00	2.80E+00	3.17E+00	1.27E+00
Toluene		7.88E-02	2.41E-01	4.21E-01	4.77E-01	1.91E-01
Xylenes (isomers and mixture)		6.78E-02	2.07E-01	3.62E-01	4.10E-01	1.64E-01
Dinitrotoluene		5.99E-03	1.51E-02	2.92E-02	2.97E-02	1.63E-02
Dibutylphthalate		2.00E-02	5.93E-02	1.05E-01	1.17E-01	4.96E-02
Antimony		1.81E-02	5.55E-02	9.69E-02	1.10E-01	4.40E-02
Total Chromium		1.51E-01	4.61E-01	8.05E-01	9.11E-01	3.65E-01
Lead		1.40E+00	4.28E+00	7.44E+00	8.41E+00	3.40E+00
Nickel		2.87E-03	8.77E-03	1.53E-02	1.73E-02	6.95E-03
Manganese		5.82E+00	1.78E+01	3.11E+01	3.52E+01	1.41E+01
Arsenic		8.03E-04	1.87E-03	2.31E-03	2.73E-03	1.47E-03
Cadmium		5.49E-03	1.28E-02	1.58E-02	1.87E-02	1.00E-02
Mercury		2.26E-07	5.29E-07	6.51E-07	7.71E-07	4.14E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	1.00E+04	7.77E+00	2.36E+01	4.10E+01	4.63E+01	1.88E+01
Nitrogen dioxide		6.00E-01	1.45E+00	2.31E+00	2.36E+00	1.46E+00
Particulates (PM-10)		6.68E+01	1.99E+02	3.42E+02	3.79E+02	1.60E+02
Sulfur dioxide		2.18E-01	4.30E-01	6.09E-01	5.28E-01	5.30E-01
Lead **		4.11E-01	1.26E+00	2.17E+00	2.46E+00	1.00E+00
Indiana HAPs						
1,3-Butadiene	1.10E+04	2.13E-03	6.52E-03	1.14E-02	1.29E-02	5.17E-03
1,4-Dichlorobenzene	2.25E+03	4.13E-05	1.26E-04	2.20E-04	2.49E-04	1.00E-04
Benzene	1.60E+01	3.78E-02	1.12E-01	1.95E-01	2.18E-01	9.16E-02
Dimethyl phthalate	2.50E+01	5.04E-05	1.54E-04	2.69E-04	3.05E-04	1.22E-04
Ethyl benzene	2.18E+03	3.52E-03	1.08E-02	1.88E-02	2.13E-02	8.53E-03
Hexane	9.00E+03	2.76E-03	8.43E-03	1.47E-02	1.67E-02	6.68E-03
Hydrogen cyanide	2.50E+01	5.19E-01	1.58E+00	2.76E+00	3.12E+00	1.26E+00
Naphthalene	2.50E+02	1.27E-03	3.58E-03	6.07E-03	6.65E-03	3.09E-03
Phenol	9.50E+01	1.70E-03	3.74E-03	5.67E-03	5.44E-03	4.12E-03
Styrene	2.10E+03	1.53E-01	4.67E-01	8.17E-01	9.24E-01	3.71E-01
Toluene	3.75E+03	2.30E-02	7.03E-02	1.23E-01	1.39E-01	5.57E-02
Xylenes (isomers and mixture)	2.18E+03	1.98E-02	6.05E-02	1.06E-01	1.20E-01	4.79E-02
Dinitrotoluene	7.50E+00	1.94E-03	4.49E-03	9.13E-03	8.86E-03	5.51E-03
Dibutylphthalate	2.50E+01	5.96E-03	1.73E-02	3.11E-02	3.43E-02	1.49E-02
Antimony	2.50E+00	5.29E-03	1.62E-02	2.83E-02	3.20E-02	1.28E-02
Total Chromium	2.50E+00	4.40E-02	1.34E-01	2.35E-01	2.66E-01	1.07E-01
Lead	2.50E-01	**4.11E-01**	**1.26E+00**	**2.17E+00**	**2.46E+00**	**1.00E+00**
Nickel	5.00E+00	8.37E-04	2.56E-03	4.47E-03	5.06E-03	2.03E-03
Manganese	2.50E+01	1.70E+00	5.19E+00	9.06E+00	1.03E+01	4.11E+00
Arsenic	2.50E+00	2.63E-04	7.86E-04	1.17E-03	1.03E-03	4.76E-04
Cadmium	2.50E-02	1.70E-03	5.08E-03	7.58E-03	6.62E-03	3.07E-03
Mercury	5.00E-01	7.41E-08	2.22E-07	3.31E-07	2.89E-07	1.34E-07

4-Short Term Scenario Boundary: 24 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		1.48E+00	4.49E+00	7.83E+00	8.82E+00	3.60E+00
Nitrogen dioxide		1.22E-01	2.81E-01	4.66E-01	4.57E-01	3.08E-01
Particulates (PM-10)	1.50E+02	1.40E+01	4.17E+01	7.50E+01	7.71E+01	3.47E+01
Sulfur dioxide	3.65E+02	4.67E-02	8.44E-02	1.32E-01	1.06E-01	1.20E-01
Lead **		7.85E-02	2.40E-01	4.15E-01	4.68E-01	1.91E-01
Indiana HAPs						
1,3-Butadiene		4.06E-04	1.24E-03	2.17E-03	2.46E-03	9.85E-04
1,4-Dichlorobenzene		7.86E-06	2.40E-05	4.20E-05	4.75E-05	1.90E-05
Benzene		7.27E-03	2.14E-02	3.73E-02	4.16E-02	1.77E-02
Dimethyl phthalate		9.60E-06	2.94E-05	5.13E-05	5.81E-05	2.33E-05
Ethyl benzene		6.71E-04	2.05E-03	3.58E-03	4.05E-03	1.63E-03
Hexane		5.25E-04	1.61E-03	2.80E-03	3.17E-03	1.27E-03
Hydrogen cyanide		9.90E-02	3.01E-01	5.26E-01	5.94E-01	2.40E-01
Naphthalene		2.49E-04	6.85E-04	1.18E-03	1.27E-03	6.13E-04
Phenol		3.54E-04	7.28E-04	1.18E-03	1.07E-03	9.01E-04
Styrene		2.91E-02	8.90E-02	1.56E-01	1.76E-01	7.06E-02
Toluene		4.38E-03	1.34E-02	2.34E-02	2.65E-02	1.06E-02
Xylenes (isomers and mixture)		3.77E-03	1.15E-02	2.01E-02	2.28E-02	9.13E-03
Dinitrotoluene		4.39E-04	8.89E-04	1.96E-03	1.76E-03	1.31E-03
Dibutylphthalate		1.18E-03	3.32E-03	6.05E-03	6.57E-03	3.00E-03
Antimony		1.01E-03	3.08E-03	5.39E-03	6.09E-03	2.44E-03
Total Chromium		8.40E-03	2.57E-02	4.49E-02	5.07E-02	2.04E-02
Lead		7.85E-02	2.40E-01	4.15E-01	4.68E-01	1.91E-01
Nickel		1.59E-04	4.87E-04	8.51E-04	9.63E-04	3.86E-04
Manganese		3.23E-01	9.88E-01	1.73E+00	1.95E+00	7.83E-01
Arsenic		1.32E-04	4.18E-04	9.02E-04	5.35E-04	3.62E-04
Cadmium		8.52E-04	2.70E-03	5.82E-03	3.46E-03	2.34E-03
Mercury		3.72E-08	1.18E-07	2.54E-07	1.51E-07	1.02E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	4.00E+04	8.78E+01	2.67E+02	4.67E+02	5.27E+02	2.13E+02
Nitrogen dioxide		4.96E+00	1.26E+01	2.24E+01	2.30E+01	1.28E+01
Particulates (PM-10)		7.08E+02	2.12E+03	3.70E+03	4.16E+03	1.72E+03
Sulfur dioxide		1.31E+00	2.44E+00	4.45E+00	3.62E+00	3.70E+00
Lead **		4.65E+00	1.42E+01	2.48E+01	2.80E+01	1.13E+01
Indiana HAPs						
1,3-Butadiene		2.44E-02	7.45E-02	1.30E-01	1.47E-01	5.91E-02
1,4-Dichlorobenzene		4.72E-04	1.44E-03	2.52E-03	2.85E-03	1.14E-03
Benzene		4.16E-01	1.25E+00	2.19E+00	2.46E+00	1.02E+00
Dimethyl phthalate		5.76E-04	1.76E-03	3.08E-03	3.48E-03	1.40E-03
Ethyl benzene		4.02E-02	1.23E-01	2.15E-01	2.43E-01	9.75E-02
Hexane		3.15E-02	9.63E-02	1.68E-01	1.90E-01	7.63E-02
Hydrogen cyanide		5.90E+00	1.80E+01	3.14E+01	3.55E+01	1.43E+01
Naphthalene		1.30E-02	3.76E-02	6.60E-02	7.29E-02	3.22E-02
Phenol		1.22E-02	2.77E-02	4.95E-02	4.74E-02	3.27E-02
Styrene		1.75E+00	5.34E+00	9.34E+00	1.06E+01	4.23E+00
Toluene		2.63E-01	8.03E-01	1.40E+00	1.59E+00	6.37E-01
Xylenes (isomers and mixture)		2.26E-01	6.91E-01	1.21E+00	1.37E+00	5.48E-01
Dinitrotoluene		2.21E-02	5.12E-02	1.04E-01	1.01E-01	6.22E-02
Dibutylphthalate		6.80E-02	1.98E-01	3.55E-01	3.92E-01	1.70E-01
Antimony		6.05E-02	1.85E-01	3.23E-01	3.66E-01	1.47E-01
Total Chromium		5.02E-01	1.53E+00	2.68E+00	3.03E+00	1.22E+00
Lead		4.65E+00	1.42E+01	2.48E+01	2.80E+01	1.13E+01
Nickel		9.56E-03	2.92E-02	5.11E-02	5.78E-02	2.32E-02
Manganese		1.94E+01	5.93E+01	1.04E+02	1.17E+02	4.70E+01
Arsenic		8.92E-04	2.08E-03	2.56E-03	3.04E-03	1.63E-03
Cadmium		6.10E-03	1.42E-02	1.75E-02	2.08E-02	1.12E-02
Mercury		2.52E-07	5.87E-07	7.23E-07	8.57E-07	4.60E-07

5-Short Term Scenario Boundary: 3 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		2.66E+01	8.06E+01	1.41E+02	1.59E+02	6.47E+01
Nitrogen dioxide		2.08E+00	4.66E+00	8.20E+00	7.89E+00	5.39E+00
Particulates (PM-10)		2.28E+02	6.66E+02	1.15E+03	1.29E+03	5.51E+02
Sulfur dioxide	1.30E+03	7.61E-01	1.27E+00	2.26E+00	1.69E+00	2.07E+00
Lead **		1.40E+00	4.28E+00	7.44E+00	8.41E+00	3.40E+00
Indiana HAPs						
1,3-Butadiene		7.32E-03	2.24E-02	3.91E-02	4.42E-02	1.77E-02
1,4-Dichlorobenzene		1.41E-04	4.32E-04	7.56E-04	8.55E-04	3.43E-04
Benzene		1.30E-01	3.83E-01	6.70E-01	7.46E-01	3.17E-01
Dimethyl phthalate		1.73E-04	5.28E-04	9.23E-04	1.04E-03	4.19E-04
Ethyl benzene		1.21E-02	3.69E-02	6.45E-02	7.30E-02	2.93E-02
Hexane		9.45E-03	2.89E-02	5.05E-02	5.71E-02	2.29E-02
Hydrogen cyanide		1.78E+00	5.41E+00	9.46E+00	1.07E+01	4.32E+00
Naphthalene		4.38E-03	1.20E-02	2.10E-02	2.27E-02	1.09E-02
Phenol		5.89E-03	1.16E-02	2.05E-02	1.79E-02	1.56E-02
Styrene		5.24E-01	1.60E+00	2.80E+00	3.17E+00	1.27E+00
Toluene		7.88E-02	2.41E-01	4.21E-01	4.77E-01	1.91E-01
Xylenes (isomers and mixture)		6.78E-02	2.07E-01	3.62E-01	4.10E-01	1.64E-01
Dinitrotoluene		8.49E-03	1.62E-02	3.72E-02	3.22E-02	2.57E-02
Dibutylphthalate		2.15E-02	6.00E-02	1.10E-01	1.19E-01	5.52E-02
Antimony		1.81E-02	5.55E-02	9.69E-02	1.10E-01	4.40E-02
Total Chromium		1.51E-01	4.61E-01	8.05E-01	9.11E-01	3.65E-01
Lead		1.40E+00	4.28E+00	7.44E+00	8.41E+00	3.40E+00
Nickel		2.87E-03	8.77E-03	1.53E-02	1.73E-02	6.95E-03
Manganese		5.82E+00	1.78E+01	3.11E+01	3.52E+01	1.41E+01
Arsenic		8.03E-04	1.87E-03	2.31E-03	2.73E-03	1.47E-03
Cadmium		5.49E-03	1.28E-02	1.58E-02	1.87E-02	1.00E-02
Mercury		2.26E-07	5.29E-07	6.51E-07	7.71E-07	4.14E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide	1.00E+04	7.84E+00	2.36E+01	4.12E+01	4.64E+01	1.91E+01
Nitrogen dioxide		7.29E-01	1.51E+00	2.72E+00	2.48E+00	1.94E+00
Particulates (PM-10)		6.86E+01	2.00E+02	3.47E+02	3.81E+02	1.66E+02
Sulfur dioxide		2.99E-01	4.68E-01	8.65E-01	6.06E-01	8.31E-01
Lead **		4.11E-01	1.26E+00	2.17E+00	2.46E+00	1.00E+00
Indiana HAPs						
1,3-Butadiene	1.10E+04	2.13E-03	6.52E-03	1.14E-02	1.29E-02	5.17E-03
1,4-Dichlorobenzene	2.25E+03	4.13E-05	1.26E-04	2.20E-04	2.49E-04	1.00E-04
Benzene	1.60E+01	3.89E-02	1.13E-01	1.98E-01	2.19E-01	9.56E-02
Dimethyl phthalate	2.50E+01	5.04E-05	1.54E-04	2.69E-04	3.05E-04	1.22E-04
Ethyl benzene	2.18E+03	3.52E-03	1.08E-02	1.88E-02	2.13E-02	8.53E-03
Hexane	9.00E+03	2.76E-03	8.43E-03	1.47E-02	1.67E-02	6.68E-03
Hydrogen cyanide	2.50E+01	5.21E-01	1.58E+00	2.76E+00	3.12E+00	1.27E+00
Naphthalene	2.50E+02	1.38E-03	3.63E-03	6.40E-03	6.76E-03	3.48E-03
Phenol	9.50E+01	2.19E-03	3.98E-03	7.23E-03	5.91E-03	5.95E-03
Styrene	2.10E+03	1.53E-01	4.67E-01	8.17E-01	9.24E-01	3.71E-01
Toluene	3.75E+03	2.30E-02	7.03E-02	1.23E-01	1.39E-01	5.57E-02
Xylenes (isomers and mixture)	2.18E+03	1.98E-02	6.05E-02	1.06E-01	1.20E-01	4.79E-02
Dinitrotoluene	7.50E+00	3.03E-03	5.01E-03	1.26E-02	9.92E-03	9.60E-03
Dibutylphthalate	2.50E+01	6.61E-03	1.77E-02	3.32E-02	3.49E-02	1.74E-02
Antimony	2.50E+00	5.29E-03	1.62E-02	2.83E-02	3.20E-02	1.28E-02
Total Chromium	2.50E+00	4.40E-02	1.34E-01	2.35E-01	2.66E-01	1.07E-01
Lead	2.50E-01	**4.11E-01**	**1.26E+00**	**2.17E+00**	**2.46E+00**	**1.00E+00**
Nickel	5.00E+00	8.37E-04	2.56E-03	4.47E-03	5.06E-03	2.03E-03
Manganese	2.50E+01	1.70E+00	5.19E+00	9.06E+00	1.03E+01	4.11E+00
Arsenic	2.50E+00	2.63E-04	7.86E-04	1.17E-03	1.03E-03	4.76E-04
Cadmium	2.50E-02	1.70E-03	5.08E-03	7.58E-03	6.62E-03	3.07E-03
Mercury	5.00E-01	7.41E-08	2.22E-07	3.31E-07	2.89E-07	1.34E-07

5-Short Term Scenario Boundary: 24 Hour Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		1.51E+00	4.50E+00	7.90E+00	8.84E+00	3.68E+00
Nitrogen dioxide		1.63E-01	3.00E-01	5.97E-01	4.96E-01	4.61E-01
Particulates (PM-10)	1.50E+02	1.45E+01	4.20E+01	7.68E+01	7.76E+01	3.67E+01
Sulfur dioxide	3.65E+02	7.22E-02	9.64E-02	2.14E-01	1.30E-01	2.16E-01
Lead **		7.85E-02	2.40E-01	4.15E-01	4.68E-01	1.91E-01
Indiana HAPs						
1,3-Butadiene		4.06E-04	1.24E-03	2.17E-03	2.46E-03	9.85E-04
1,4-Dichlorobenzene		7.86E-06	2.40E-05	4.20E-05	4.75E-05	1.90E-05
Benzene		7.60E-03	2.16E-02	3.84E-02	4.19E-02	1.90E-02
Dimethyl phthalate		9.60E-06	2.94E-05	5.13E-05	5.81E-05	2.33E-05
Ethyl benzene		6.71E-04	2.05E-03	3.58E-03	4.05E-03	1.63E-03
Hexane		5.25E-04	1.61E-03	2.80E-03	3.17E-03	1.27E-03
Hydrogen cyanide		9.97E-02	3.01E-01	5.28E-01	5.94E-01	2.43E-01
Naphthalene		2.83E-04	7.01E-04	1.28E-03	1.31E-03	7.38E-04
Phenol		5.09E-04	8.01E-04	1.67E-03	1.22E-03	1.48E-03
Styrene		2.91E-02	8.90E-02	1.56E-01	1.76E-01	7.06E-02
Toluene		4.38E-03	1.34E-02	2.34E-02	2.65E-02	1.06E-02
Xylenes (isomers and mixture)		3.77E-03	1.15E-02	2.01E-02	2.28E-02	9.13E-03
2,4-Dinitrotoluene		4.08E-04	5.74E-04	1.62E-03	1.14E-03	1.34E-03
2,6-Dinitrotoluene		3.77E-04	4.79E-04	1.45E-03	9.53E-04	1.27E-03
Dinitrotoluene		7.85E-04	1.05E-03	3.07E-03	2.09E-03	2.61E-03
Dibutylphthalate		1.38E-03	3.42E-03	6.72E-03	6.77E-03	3.78E-03
Antimony		1.01E-03	3.08E-03	5.39E-03	6.09E-03	2.44E-03
Total Chromium		8.40E-03	2.57E-02	4.49E-02	5.07E-02	2.04E-02
Lead		7.85E-02	2.40E-01	4.15E-01	4.68E-01	1.91E-01
Nickel		1.59E-04	4.87E-04	8.51E-04	9.63E-04	3.86E-04
Manganese		3.23E-01	9.88E-01	1.73E+00	1.95E+00	7.83E-01
Arsenic		1.32E-04	4.18E-04	9.02E-04	5.35E-04	3.62E-04
Cadmium		8.52E-04	2.70E-03	5.82E-03	3.46E-03	2.34E-03
Mercury		3.72E-08	1.18E-07	2.54E-07	1.51E-07	1.02E-07

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		2.54E-01	7.50E-01	1.32E+00	1.46E+00	6.30E-01
Nitrogen dioxide		3.47E-02	5.71E-02	1.16E-01	7.75E-02	1.14E-01
Particulates (PM-10)		5.41E-01	5.04E+00	9.04E+00	9.43E+00	4.96E+00
Sulfur dioxide		1.03E-02	1.49E-02	3.16E-02	1.76E-02	3.49E-02
Lead **	1.50E+00	2.08E-02	6.34E-02	9.62E-02	1.06E-01	5.31E-02
Indiana HAPs						
1,3-Butadiene		4.05E-05	1.24E-04	2.16E-04	2.45E-04	9.81E-05
1,4-Dichlorobenzene		4.15E-07	1.27E-06	2.16E-06	2.44E-06	3.36E-06
Benzene		2.35E-04	6.30E-04	1.18E-03	1.25E-03	3.89E-06
Dimethyl phthalate		1.48E-06	4.52E-06	7.90E-06	8.94E-06	3.58E-06
Ethyl benzene		6.34E-05	1.94E-04	3.39E-04	3.83E-04	1.54E-04
Hexane		4.96E-05	1.52E-04	2.65E-04	3.00E-04	1.20E-04
Hydrogen cyanide		1.47E-02	4.36E-02	7.67E-02	8.54E-02	3.64E-02
Naphthalene		3.66E-05	7.84E-05	1.48E-04	1.31E-04	1.09E-04
Phenol		2.33E-05	1.33E-04	2.83E-04	1.54E-04	3.17E-04
Styrene		2.64E-03	8.08E-03	1.41E-02	1.60E-02	6.40E-03
Toluene		4.12E-04	1.26E-03	2.20E-03	2.49E-03	9.98E-04
Xylenes (isomers and mixture)		3.35E-04	1.02E-03	1.79E-03	2.02E-03	8.11E-04
Dinitrotoluene		3.08E-04	2.98E-04	1.10E-03	5.91E-04	1.08E-03
Dibutylphthalate		3.84E-04	7.89E-04	1.73E-03	1.56E-03	1.13E-03
Antimony		2.39E-04	7.31E-04	1.21E-03	1.36E-03	5.93E-04
Total Chromium		1.84E-03	5.64E-03	9.81E-03	1.11E-02	4.48E-03
Lead		2.08E-02	6.34E-02	9.62E-02	1.06E-01	5.31E-02
Nickel		2.11E-04	6.43E-04	4.56E-04	4.03E-04	6.41E-04
Manganese		7.08E-02	2.17E-01	3.78E-01	4.28E-01	1.72E-01
Arsenic		1.35E-06	4.29E-06	7.25E-06	5.51E-06	2.84E-06
Cadmium		8.70E-06	2.77E-05	4.68E-05	3.56E-05	1.83E-05
Mercury		3.80E-10	1.21E-09	2.05E-09	1.56E-09	8.00E-10

Long Term Scenario Boundary: Annual Standards

		Receptor				
Contaminant	Standard	Boundary - ENE	Boundary - E	Boundary - ESE	Boundary - SE	Boundary - 17th
NAAQS						
Carbon monoxide		6.34E-02	1.87E-01	3.30E-01	3.66E-01	1.58E-01
Nitrogen dioxide	1.00E+02	8.69E-03	1.43E-02	2.90E-02	1.94E-02	2.84E-02
Particulates (PM-10)	5.00E+01	3.20E-02	1.49E+00	2.64E+00	2.65E+00	1.39E+00
Sulfur dioxide	8.00E+01	2.57E-03	3.73E-03	7.90E-03	4.40E-03	8.72E-03
Lead **		5.20E-03	1.59E-02	2.41E-02	2.66E-02	1.33E-02
Indiana HAPs						
1,3-Butadiene		1.01E-05	3.10E-05	5.41E-05	6.12E-05	2.45E-05
1,4-Dichlorobenzene		4.01E-07	1.23E-06	2.14E-06	2.43E-06	9.72E-07
Benzene		2.50E-04	6.73E-04	1.21E-03	1.26E-03	6.62E-04
Dimethyl phthalate		3.70E-07	1.13E-06	1.97E-06	2.23E-06	8.96E-07
Ethyl benzene		1.58E-05	4.85E-05	8.47E-05	9.58E-05	3.84E-05
Hexane		1.24E-05	3.79E-05	6.63E-05	7.50E-05	3.01E-05
Hydrogen cyanide		3.68E-03	1.09E-02	1.92E-02	2.13E-02	9.11E-03
Naphthalene		9.14E-06	1.96E-05	3.71E-05	3.28E-05	2.72E-05
Phenol		6.19E-06	3.32E-05	7.08E-05	3.84E-05	7.93E-05
Styrene		6.60E-04	2.02E-03	3.53E-03	3.99E-03	1.60E-03
Toluene		1.03E-04	3.15E-04	5.50E-04	6.22E-04	2.49E-04
Xylenes (isomers and mixture)		8.37E-05	2.56E-04	4.47E-04	5.06E-04	2.03E-04
Dinitrotoluene		7.69E-05	7.45E-05	2.76E-04	1.48E-04	2.70E-04
Dibutylphthalate		9.60E-05	1.97E-04	4.32E-04	3.91E-04	2.83E-04
Antimony		5.98E-05	1.83E-04	3.02E-04	3.39E-04	1.48E-04
Total Chromium		4.63E-04	1.41E-03	2.46E-03	2.78E-03	1.12E-03
Lead		5.20E-03	1.59E-02	2.41E-02	2.66E-02	1.33E-02
Nickel		5.28E-05	1.61E-04	1.14E-04	1.01E-04	1.60E-04
Manganese		1.77E-02	5.41E-02	9.46E-02	1.07E-01	4.29E-02
Arsenic		5.39E-06	1.72E-05	2.90E-05	2.20E-05	1.13E-05
Cadmium		3.48E-05	1.11E-04	1.87E-04	1.42E-04	7.33E-05
Mercury		1.52E-09	4.84E-09	8.18E-09	6.22E-09	3.20E-09

DISCRETE RECEPTORS

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	4.00E+04	6.05E+02	3.21E+02	1.97E+02	9.34E+02	4.90E-01	1.47E+02	2.63E+02	7.71E+01	4.48E+02
Nitrogen dioxide		2.63E+01	1.44E+01	8.82E+00	4.11E+01	9.40E-01	8.09E+00	1.22E+01	4.22E+00	1.92E+01
Particulates (PM-10)		4.77E+03	2.54E+03	1.56E+03	7.84E+03	4.30E+01	1.18E+03	2.09E+03	6.24E+02	3.54E+03
Sulfur dioxide		4.05E+00	2.45E+00	1.49E+00	6.62E+00	5.85E-01	2.05E+00	2.23E+00	1.07E+00	2.84E+00
Lead **		3.24E+01	1.73E+01	1.06E+01	4.99E+01	8.58E-02	8.21E+00	1.42E+01	4.28E+00	2.40E+01
Indiana HAPs										
1,3-Butadiene		1.69E-01	8.97E-02	5.50E-02	2.61E-01		4.10E-02	7.34E-02	2.14E-02	1.25E-01
1,4-Dichlorobenzene		3.27E-03	1.73E-03	1.06E-03	5.05E-03		7.92E-04	1.42E-03	4.14E-04	2.43E-03
Benzene		2.82E+00	1.50E+00	9.20E-01	4.36E+00	7.72E-03	6.98E-01	1.23E+00	3.65E-01	2.09E+00
Dimethyl phthalate		4.00E-03	2.12E-03	1.30E-03	6.17E-03		9.68E-04	1.74E-03	5.06E-04	2.96E-03
Ethyl benzene		2.79E-01	1.48E-01	9.08E-02	4.31E-01		6.76E-02	1.21E-01	3.54E-02	2.07E-01
Hexane		2.18E-01	1.16E-01	7.11E-02	3.37E-01		5.29E-02	9.49E-02	2.77E-02	1.62E-01
Hydrogen cyanide		4.08E+01	2.16E+01	1.33E+01	6.30E+01	1.59E-02	9.90E+00	1.77E+01	5.18E+00	3.02E+01
Naphthalene		8.34E-02	4.47E-02	2.74E-02	1.29E-01	7.69E-04	2.16E-02	3.69E-02	1.13E-02	6.17E-02
Phenol		5.38E-02	3.04E-02	1.86E-02	8.53E-02	3.57E-03	1.96E-02	2.62E-02	1.02E-02	3.89E-02
Styrene		1.21E+01	6.43E+00	3.94E+00	1.87E+01		2.94E+00	5.26E+00	1.54E+00	8.99E+00
Toluene		1.82E+00	9.67E-01	5.93E-01	2.81E+00		4.41E-01	7.91E-01	2.31E-01	1.35E+00
Xylenes (isomers and mixture)		1.57E+00	8.31E-01	5.10E-01	2.42E+00		3.80E-01	6.81E-01	1.99E-01	1.16E+00
Dinitrotoluene		1.09E-01	5.79E-02	3.55E-02	1.68E-01	2.59E-05	2.65E-02	4.74E-02	1.39E-02	8.09E-02
Dibutylphthalate		4.45E-01	2.36E-01	1.45E-01	6.88E-01	3.10E-06	1.08E-01	1.93E-01	5.64E-02	3.30E-01
Antimony		4.21E-01	2.23E-01	1.37E-01	6.49E-01	3.27E-04	1.03E-01	1.83E-01	5.40E-02	3.12E-01
Total Chromium		3.48E+00	1.85E+00	1.13E+00	5.39E+00	8.23E-04	8.44E-01	1.51E+00	4.42E-01	2.58E+00
Lead		3.24E+01	1.73E+01	1.06E+01	4.99E+01	8.58E-02	8.21E+00	1.42E+01	4.28E+00	2.40E+01
Nickel		7.83E-02	4.46E-02	2.67E-02	1.13E-01	3.13E-03	3.25E-02	3.92E-02	1.63E-02	5.59E-02
Manganese		1.34E+02	7.13E+01	4.37E+01	2.08E+02		3.26E+01	5.84E+01	1.70E+01	9.97E+01
Arsenic		3.76E-03	2.13E-03	1.79E-03	3.92E-02	2.15E-03	1.29E-03	2.23E-03	1.03E-03	2.97E-03
Cadmium		2.57E-02	1.46E-02	1.22E-02	2.68E-01	1.47E-02	8.86E-03	1.53E-02	7.02E-03	2.03E-02
Mercury		1.06E-06	6.01E-07	5.04E-07	1.11E-05	6.06E-07	3.65E-07	6.30E-07	2.89E-07	8.38E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.82E+02	9.68E+01	5.94E+01	2.81E+02	4.28E-01	4.49E+01	7.94E+01	2.35E+01	1.35E+02
Nitrogen dioxide		9.17E+00	5.29E+00	3.22E+00	1.48E+01	8.22E-01	3.67E+00	4.63E+00	1.92E+00	6.58E+00
Particulates (PM-10)		1.48E+03	7.92E+02	4.92E+02	2.72E+03	3.83E+01	3.83E+02	6.59E+02	2.05E+02	1.10E+03
Sulfur dioxide	1.30E+03	2.02E+00	1.33E+00	8.06E-01	3.48E+00	5.12E-01	1.39E+00	1.28E+00	7.25E-01	1.36E+00
Lead **		9.91E+00	5.33E+00	3.25E+00	1.52E+01	7.57E-02	2.72E+00	4.43E+00	1.40E+00	7.30E+00
Indiana HAPs										
1,3-Butadiene		5.07E-02	2.69E-02	1.65E-02	7.83E-02		1.23E-02	2.20E-02	6.43E-03	3.76E-02
1,4-Dichlorobenzene		9.81E-04	5.20E-04	3.19E-04	1.51E-03		2.38E-04	4.26E-04	1.24E-04	7.28E-04
Benzene		8.57E-01	4.58E-01	2.81E-01	1.33E+00	6.75E-03	2.19E-01	3.77E-01	1.15E-01	6.34E-01
Dimethyl phthalate		1.20E-03	6.36E-04	3.90E-04	1.85E-03		2.90E-04	5.21E-04	1.52E-04	8.89E-04
Ethyl benzene		8.37E-02	4.44E-02	2.72E-02	1.29E-01		2.03E-02	3.64E-02	1.06E-02	6.21E-02
Hexane		6.55E-02	3.48E-02	2.13E-02	1.01E-01		1.59E-02	2.85E-02	8.31E-03	4.86E-02
Hydrogen cyanide		1.22E+01	6.51E+00	3.99E+00	1.89E+01	1.39E-02	2.99E+00	5.33E+00	1.57E+00	9.08E+00
Naphthalene		2.61E-02	1.42E-02	8.68E-03	4.08E-02	6.72E-04	7.50E-03	1.19E-02	3.92E-03	1.92E-02
Phenol		2.10E-02	1.28E-02	7.76E-03	3.47E-02	3.12E-03	1.06E-02	1.16E-02	5.52E-03	1.48E-02
Styrene		3.64E+00	1.93E+00	1.18E+00	5.62E+00		8.81E-01	1.58E+00	4.61E-01	2.70E+00
Toluene		5.47E-01	2.90E-01	1.78E-01	8.44E-01		1.32E-01	2.37E-01	6.93E-02	4.05E-01
Xylenes (isomers and mixture)		4.70E-01	2.49E-01	1.53E-01	7.26E-01		1.14E-01	2.04E-01	5.96E-02	3.49E-01
Dinitrotoluene		3.28E-02	1.74E-02	1.07E-02	5.06E-02	2.33E-05	8.03E-03	1.43E-02	4.20E-03	2.43E-02
Dibutylphthalate		1.34E-01	7.09E-02	4.35E-02	2.06E-01	2.79E-06	3.24E-02	5.80E-02	1.69E-02	9.91E-02
Antimony		1.27E-01	6.76E-02	4.14E-02	1.95E-01	2.94E-04	3.20E-02	5.56E-02	1.67E-02	9.40E-02
Total Chromium		1.05E+00	5.55E-01	3.40E-01	1.62E+00	7.40E-04	2.54E-01	4.54E-01	1.33E-01	7.75E-01
Lead		9.91E+00	5.33E+00	3.25E+00	1.52E+01	7.57E-02	2.72E+00	4.43E+00	1.40E+00	7.30E+00
Nickel		3.07E-02	1.90E-02	1.11E-02	4.01E-02	2.82E-03	1.96E-02	1.80E-02	9.61E-03	2.08E-02
Manganese		4.03E+01	2.14E+01	1.31E+01	6.23E+01		9.77E+00	1.75E+01	5.11E+00	2.99E+01
Arsenic		3.38E-03	1.92E-03	1.61E-03	3.53E-02	1.93E-03	1.17E-03	2.01E-03	9.24E-04	2.67E-03
Cadmium		2.31E-02	1.31E-02	1.10E-02	2.41E-01	1.32E-02	7.97E-03	1.37E-02	6.32E-03	1.83E-02
Mercury		9.54E-07	5.41E-07	4.54E-07	9.95E-06	5.45E-07	3.29E-07	5.67E-07	2.61E-07	7.54E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	1.00E+04	5.34E+01	2.85E+01	1.75E+01	8.26E+01	2.43E-01	1.35E+01	2.34E+01	7.03E+00	3.96E+01
Nitrogen dioxide		3.31E+00	2.03E+00	1.22E+00	5.23E+00	4.66E-01	1.79E+00	1.86E+00	9.21E-01	2.30E+00
Particulates (PM-10)		4.51E+02	2.43E+02	1.47E+02	1.00E+03	1.77E+01	1.23E+02	2.02E+02	6.41E+01	3.33E+02
Sulfur dioxide		9.85E-01	6.90E-01	4.10E-01	1.60E+00	2.90E-01	8.55E-01	6.92E-01	4.37E-01	6.37E-01
Lead **		3.03E+00	1.66E+00	1.01E+00	4.56E+00	5.73E-02	9.76E-01	1.41E+00	4.97E-01	2.21E+00
Indiana HAPs										
1,3-Butadiene	1.10E+04	1.48E-02	7.85E-03	4.81E-03	2.29E-02		3.58E-03	6.42E-03	1.88E-03	1.10E-02
1,4-Dichlorobenzene	2.25E+03	2.86E-04	1.52E-04	9.31E-05	4.42E-04		6.93E-05	1.24E-04	3.63E-05	2.12E-04
Benzene	1.60E+01	2.55E-01	1.38E-01	8.42E-02	3.95E-01	3.82E-03	6.99E-02	1.14E-01	3.65E-02	1.88E-01
Dimethyl phthalate	2.50E+01	3.50E-04	1.85E-04	1.14E-04	5.40E-04		8.47E-05	1.52E-04	4.43E-05	2.59E-04
Ethyl benzene	2.18E+03	2.44E-02	1.30E-02	7.94E-03	3.77E-02		5.91E-03	1.06E-02	3.09E-03	1.81E-02
Hexane	9.00E+03	1.91E-02	1.01E-02	6.22E-03	2.95E-02		4.63E-03	8.30E-03	2.42E-03	1.42E-02
Hydrogen cyanide	2.50E+01	3.58E+00	1.91E+00	1.17E+00	5.54E+00	7.90E-03	8.85E-01	1.56E+00	4.63E-01	2.66E+00
Naphthalene	2.50E+02	8.13E-03	4.53E-03	2.76E-03	1.27E-02	3.81E-04	2.78E-03	3.88E-03	1.44E-03	5.91E-03
Phenol	1.00E+02	8.55E-03	5.56E-03	3.33E-03	1.37E-02	1.77E-03	5.83E-03	5.32E-03	2.98E-03	5.77E-03
Styrene	2.10E+03	1.06E+00	5.62E-01	3.45E-01	1.64E+00		2.57E-01	4.60E-01	1.34E-01	7.86E-01
Toluene	3.75E+03	1.59E-01	8.46E-02	5.19E-02	2.46E-01		3.86E-02	6.92E-02	2.02E-02	1.18E-01
Xylenes (isomers and mixture)	2.18E+03	1.37E-01	7.27E-02	4.46E-02	2.12E-01		3.32E-02	5.95E-02	1.74E-02	1.02E-01
Dinitrotoluene	7.50E+00	9.60E-03	5.11E-03	3.13E-03	1.48E-02	1.76E-05	2.40E-03	4.20E-03	1.25E-03	7.11E-03
Dibutylphthalate	2.50E+01	3.90E-02	2.07E-02	1.27E-02	6.02E-02	2.17E-06	9.45E-03	1.69E-02	4.94E-03	2.89E-02
Antimony	2.50E+00	3.76E-02	2.02E-02	1.23E-02	5.74E-02	2.29E-04	1.01E-02	1.67E-02	5.23E-03	2.77E-02
Total Chromium	2.50E+00	3.05E-01	1.62E-01	9.94E-02	4.78E-01	3.71E-04	7.46E-02	1.33E-01	3.90E-02	2.27E-01
Lead	2.50E-01	**3.03E+00**	**1.66E+00**	**1.01E+00**	**4.56E+00**	**5.73E-02**	**9.76E-01**	**1.41E+00**	**4.97E-01**	**2.21E+00**
Nickel	5.00E+00	1.42E-02	9.64E-03	5.48E-03	1.63E-02	2.19E-03	1.29E-02	9.81E-03	6.25E-03	8.98E-03
Manganese	2.50E+01	1.18E+01	6.24E+00	3.83E+00	**1.82E+01**		2.85E+00	5.11E+00	1.49E+00	8.73E+00
Arsenic	2.50E+00	1.77E-03	9.61E-04	4.38E-04	2.44E-02	8.09E-04	4.25E-04	7.83E-04	2.36E-04	1.33E-03
Cadmium	2.50E-02	1.14E-02	6.21E-03	2.83E-03	**1.57E-01**	5.23E-03	2.74E-03	5.06E-03	1.53E-03	8.62E-03
Mercury	5.00E-01	5.00E-07	2.71E-07	1.24E-07	6.87E-06	2.28E-07	1.20E-07	2.21E-07	6.66E-08	3.76E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.02E+01	5.44E+00	3.33E+00	1.57E+01	5.09E-02	2.59E+00	4.48E+00	1.35E+00	7.54E+00
Nitrogen dioxide		6.65E-01	4.13E-01	2.47E-01	1.03E+00	9.77E-02	3.89E-01	3.85E-01	1.98E-01	4.58E-01
Particulates (PM-10)	1.50E+02	9.56E+01	4.98E+01	3.12E+01	**3.39E+02**	8.85E+00	2.63E+01	4.47E+01	1.38E+01	6.93E+01
Sulfur dioxide	3.65E+02	2.09E-01	1.48E-01	8.73E-02	3.23E-01	6.08E-02	1.92E-01	1.50E-01	9.72E-02	1.33E-01
Lead **		5.81E-01	3.20E-01	1.94E-01	8.89E-01	1.26E-02	1.92E-01	2.72E-01	9.75E-02	4.23E-01
Indiana HAPs										
1,3-Butadiene		2.82E-03	1.49E-03	9.17E-04	4.35E-03		6.83E-04	1.22E-03	3.57E-04	2.09E-03
1,4-Dichlorobenzene		5.45E-05	2.89E-05	1.77E-05	8.42E-05		1.32E-05	2.37E-05	6.91E-06	4.04E-05
Benzene		4.89E-02	2.64E-02	1.62E-02	7.55E-02	8.02E-04	1.37E-02	2.20E-02	7.13E-03	3.60E-02
Dimethyl phthalate		6.66E-05	3.53E-05	2.17E-05	1.03E-04		1.61E-05	2.89E-05	8.44E-06	4.94E-05
Ethyl benzene		4.65E-03	2.47E-03	1.51E-03	7.18E-03		1.13E-03	2.02E-03	5.90E-04	3.45E-03
Hexane		3.64E-03	1.93E-03	1.18E-03	5.62E-03		8.82E-04	1.58E-03	4.61E-04	2.70E-03
Hydrogen cyanide		6.83E-01	3.63E-01	2.23E-01	1.06E+00	1.66E-03	1.69E-01	2.98E-01	8.85E-02	5.06E-01
Naphthalene		1.58E-03	8.85E-04	5.38E-04	2.43E-03	7.99E-05	5.68E-04	7.63E-04	2.93E-04	1.14E-03
Phenol		1.76E-03	1.16E-03	6.89E-04	2.71E-03	3.70E-04	1.29E-03	1.13E-03	6.54E-04	1.17E-03
Styrene		2.02E-01	1.07E-01	6.57E-02	3.12E-01		4.89E-02	8.77E-02	2.56E-02	1.50E-01
Toluene		3.04E-02	1.61E-02	9.88E-03	4.69E-02		7.36E-03	1.32E-02	3.85E-03	2.25E-02
Xylenes (isomers and mixture)		2.61E-02	1.39E-02	8.50E-03	4.03E-02		6.33E-03	1.13E-02	3.31E-03	1.94E-02
Dinitrotoluene		1.83E-03	9.74E-04	5.97E-04	2.83E-03	3.82E-06	4.58E-04	8.00E-04	2.39E-04	1.35E-03
Dibutylphthalate		7.42E-03	3.94E-03	2.41E-03	1.15E-02	4.52E-07	1.80E-03	3.22E-03	9.42E-04	5.50E-03
Antimony		7.16E-03	3.84E-03	2.35E-03	1.09E-02	4.36E-05	1.92E-03	3.18E-03	9.96E-04	5.28E-03
Total Chromium		5.84E-02	3.10E-02	1.90E-02	9.41E-02	1.83E-04	1.43E-02	2.54E-02	7.45E-03	4.33E-02
Lead		5.81E-01	3.20E-01	1.94E-01	8.89E-01	1.26E-02	1.92E-01	2.72E-01	9.75E-02	4.23E-01
Nickel		2.70E-03	1.84E-03	1.04E-03	3.10E-03	4.17E-04	2.46E-03	1.87E-03	1.19E-03	1.71E-03
Manganese		2.24E+00	1.19E+00	7.29E-01	3.46E+00		5.43E-01	9.73E-01	2.84E-01	1.66E+00
Arsenic		9.90E-04	4.02E-04	2.99E-04	1.51E-02	5.34E-04	2.48E-04	5.67E-04	1.36E-04	6.55E-04
Cadmium		6.40E-03	2.60E-03	1.93E-03	9.74E-02	3.45E-03	1.60E-03	3.66E-03	8.80E-04	4.23E-03
Mercury		2.79E-07	1.13E-07	8.44E-08	4.25E-06	1.51E-07	7.00E-08	1.60E-07	3.84E-08	1.85E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	4.00E+04	6.05E+02	3.21E+02	1.97E+02	9.34E+02	4.91E-01	1.47E+02	2.63E+02	7.71E+01	4.48E+02
Nitrogen dioxide		2.63E+01	1.44E+01	8.82E+00	4.11E+01	9.44E-01	8.09E+00	1.22E+01	4.22E+00	1.92E+01
Particulates (PM-10)		4.77E+03	2.54E+03	1.56E+03	7.84E+03	4.30E+01	1.18E+03	2.09E+03	6.24E+02	3.54E+03
Sulfur dioxide		4.05E+00	2.46E+00	1.49E+00	6.61E+00	5.88E-01	2.06E+00	2.23E+00	1.07E+00	2.84E+00
Lead **		3.22E+01	1.71E+01	1.05E+01	4.98E+01	4.01E-02	7.97E+00	1.41E+01	4.16E+00	2.39E+01
Indiana HAPs										
1,3-Butadiene		1.69E-01	8.97E-02	5.50E-02	2.61E-01		4.10E-02	7.34E-02	2.14E-02	1.25E-01
1,4-Dichlorobenzene		3.27E-03	1.73E-03	1.06E-03	5.05E-03		7.92E-04	1.42E-03	4.14E-04	2.43E-03
Benzene		2.82E+00	1.50E+00	9.20E-01	4.36E+00	7.75E-03	6.98E-01	1.23E+00	3.65E-01	2.09E+00
Dimethyl phthalate		4.00E-03	2.12E-03	1.30E-03	6.17E-03		9.68E-04	1.74E-03	5.06E-04	2.96E-03
Ethyl benzene		2.79E-01	1.48E-01	9.08E-02	4.31E-01		6.76E-02	1.21E-01	3.54E-02	2.07E-01
Hexane		2.18E-01	1.16E-01	7.11E-02	3.37E-01		5.29E-02	9.49E-02	2.77E-02	1.62E-01
Hydrogen cyanide		4.08E+01	2.16E+01	1.33E+01	6.30E+01	1.60E-02	9.90E+00	1.77E+01	5.18E+00	3.02E+01
Naphthalene		8.34E-02	4.47E-02	2.74E-02	1.29E-01	7.72E-04	2.16E-02	3.69E-02	1.13E-02	6.17E-02
Phenol		5.38E-02	3.04E-02	1.86E-02	8.53E-02	3.58E-03	1.96E-02	2.63E-02	1.02E-02	3.89E-02
Styrene		1.21E+01	6.43E+00	3.94E+00	1.87E+01		2.94E+00	5.26E+00	1.54E+00	8.99E+00
Toluene		1.82E+00	9.67E-01	5.93E-01	2.81E+00		4.41E-01	7.91E-01	2.31E-01	1.35E+00
Xylenes (isomers and mixture)		1.57E+00	8.31E-01	5.10E-01	2.42E+00		3.80E-01	6.81E-01	1.99E-01	1.16E+00
Dinitrotoluene		1.09E-01	5.79E-02	3.55E-02	1.68E-01	5.33E-05	2.66E-02	4.74E-02	1.39E-02	8.09E-02
Dibutylphthalate		4.45E-01	2.36E-01	1.45E-01	6.88E-01	2.85E-05	1.08E-01	1.93E-01	5.65E-02	3.30E-01
Antimony		4.19E-01	2.22E-01	1.36E-01	6.48E-01		1.02E-01	1.82E-01	5.32E-02	3.11E-01
Total Chromium		3.48E+00	1.85E+00	1.13E+00	5.39E+00	6.33E-04	8.43E-01	1.51E+00	4.41E-01	2.58E+00
Lead		3.22E+01	1.71E+01	1.05E+01	4.98E+01	4.01E-02	7.97E+00	1.41E+01	4.16E+00	2.39E+01
Nickel		6.63E-02	3.52E-02	2.16E-02	1.02E-01		1.61E-02	2.88E-02	8.41E-03	4.92E-02
Manganese		1.34E+02	7.13E+01	4.37E+01	2.08E+02		3.26E+01	5.84E+01	1.70E+01	9.97E+01
Arsenic		3.76E-03	2.13E-03	1.79E-03	3.92E-02	2.15E-03	1.29E-03	2.23E-03	1.03E-03	2.97E-03
Cadmium		2.57E-02	1.46E-02	1.22E-02	2.68E-01	1.47E-02	8.86E-03	1.53E-02	7.02E-03	2.03E-02
Mercury		1.06E-06	6.01E-07	5.04E-07	1.11E-05	6.06E-07	3.65E-07	6.30E-07	2.89E-07	8.38E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.82E+02	9.68E+01	5.94E+01	2.81E+02	4.27E-01	4.48E+01	7.94E+01	2.35E+01	1.35E+02
Nitrogen dioxide		9.16E+00	5.28E+00	3.22E+00	1.47E+01	8.20E-01	3.66E+00	4.62E+00	1.91E+00	6.58E+00
Particulates (PM-10)		1.48E+03	7.92E+02	4.92E+02	2.72E+03	3.83E+01	3.83E+02	6.59E+02	2.05E+02	1.10E+03
Sulfur dioxide	1.30E+03	2.01E+00	1.33E+00	8.05E-01	3.48E+00	5.11E-01	1.39E+00	1.28E+00	7.24E-01	1.36E+00
Lead **		9.76E+00	5.21E+00	3.19E+00	1.50E+01	3.46E-02	2.50E+00	4.29E+00	1.30E+00	7.21E+00
Indiana HAPs										
1,3-Butadiene		5.07E-02	2.69E-02	1.65E-02	7.83E-02		1.23E-02	2.20E-02	6.43E-03	3.76E-02
1,4-Dichlorobenzene		9.81E-04	5.20E-04	3.19E-04	1.51E-03		2.38E-04	4.26E-04	1.24E-04	7.28E-04
Benzene		8.57E-01	4.58E-01	2.81E-01	1.33E+00	6.73E-03	2.19E-01	3.77E-01	1.15E-01	6.34E-01
Dimethyl phthalate		1.20E-03	6.36E-04	3.90E-04	1.85E-03		2.90E-04	5.21E-04	1.52E-04	8.89E-04
Ethyl benzene		8.37E-02	4.44E-02	2.72E-02	1.29E-01		2.03E-02	3.64E-02	1.06E-02	6.21E-02
Hexane		6.55E-02	3.48E-02	2.13E-02	1.01E-01		1.59E-02	2.85E-02	8.31E-03	4.86E-02
Hydrogen cyanide		1.22E+01	6.51E+00	3.99E+00	1.89E+01	1.39E-02	2.99E+00	5.33E+00	1.57E+00	9.08E+00
Naphthalene		2.61E-02	1.42E-02	8.68E-03	4.08E-02	6.71E-04	7.50E-03	1.19E-02	3.92E-03	1.92E-02
Phenol		2.10E-02	1.27E-02	7.75E-03	3.47E-02	3.11E-03	1.06E-02	1.16E-02	5.51E-03	1.48E-02
Styrene		3.64E+00	1.93E+00	1.18E+00	5.62E+00		8.81E-01	1.58E+00	4.61E-01	2.70E+00
Toluene		5.47E-01	2.90E-01	1.78E-01	8.44E-01		1.32E-01	2.37E-01	6.93E-02	4.05E-01
Xylenes (isomers and mixture)		4.70E-01	2.49E-01	1.53E-01	7.26E-01		1.14E-01	2.04E-01	5.96E-02	3.49E-01
Dinitrotoluene		3.27E-02	1.74E-02	1.07E-02	5.05E-02	7.02E-06	7.99E-03	1.42E-02	4.18E-03	2.43E-02
Dibutylphthalate		1.34E-01	7.09E-02	4.35E-02	2.06E-01	1.07E-06	3.24E-02	5.80E-02	1.69E-02	9.91E-02
Antimony		1.26E-01	6.67E-02	4.09E-02	1.94E-01		3.05E-02	5.46E-02	1.59E-02	9.33E-02
Total Chromium		1.04E+00	5.54E-01	3.40E-01	1.62E+00	5.70E-04	2.53E-01	4.54E-01	1.33E-01	7.75E-01
Lead		9.76E+00	5.21E+00	3.19E+00	1.50E+01	3.46E-02	2.50E+00	4.29E+00	1.30E+00	7.21E+00
Nickel		1.99E-02	1.06E-02	6.47E-03	3.07E-02		4.82E-03	8.64E-03	2.52E-03	1.48E-02
Manganese		4.03E+01	2.14E+01	1.31E+01	6.23E+01		9.77E+00	1.75E+01	5.11E+00	2.99E+01
Arsenic		3.38E-03	1.92E-03	1.61E-03	3.53E-02	1.93E-03	1.17E-03	2.01E-03	9.24E-04	2.67E-03
Cadmium		2.31E-02	1.31E-02	1.10E-02	2.41E-01	1.32E-02	7.97E-03	1.37E-02	6.32E-03	1.83E-02
Mercury		9.54E-07	5.41E-07	4.54E-07	9.95E-06	5.45E-07	3.29E-07	5.67E-07	2.61E-07	7.54E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	1.00E+04	5.34E+01	2.85E+01	1.75E+01	8.26E+01	2.42E-01	1.35E+01	2.34E+01	7.03E+00	3.96E+01
Nitrogen dioxide		3.31E+00	2.02E+00	1.22E+00	5.23E+00	4.64E-01	1.79E+00	1.86E+00	9.18E-01	2.30E+00
Particulates (PM-10)		4.51E+02	2.43E+02	1.47E+02	1.00E+03	1.77E+01	1.23E+02	2.02E+02	6.41E+01	3.33E+02
Sulfur dioxide		9.83E-01	6.89E-01	4.09E-01	1.59E+00	2.89E-01	8.52E-01	6.90E-01	4.35E-01	6.35E-01
Lead **		2.90E+00	1.56E+00	9.54E-01	4.46E+00	2.53E-02	8.08E-01	1.30E+00	4.17E-01	2.14E+00
Indiana HAPs										
1,3-Butadiene	1.10E+04	1.48E-02	7.85E-03	4.81E-03	2.29E-02		3.58E-03	6.42E-03	1.88E-03	1.10E-02
1,4-Dichlorobenzene	2.25E+03	2.86E-04	1.52E-04	9.31E-05	4.42E-04		6.93E-05	1.24E-04	3.63E-05	2.12E-04
Benzene	1.60E+01	2.55E-01	1.38E-01	8.42E-02	3.95E-01	3.81E-03	6.99E-02	1.14E-01	3.64E-02	1.88E-01
Dimethyl phthalate	2.50E+01	3.50E-04	1.85E-04	1.14E-04	5.40E-04		8.47E-05	1.52E-04	4.43E-05	2.59E-04
Ethyl benzene	2.18E+03	2.44E-02	1.30E-02	7.94E-03	3.77E-02		5.91E-03	1.06E-02	3.09E-03	1.81E-02
Hexane	9.00E+03	1.91E-02	1.01E-02	6.22E-03	2.95E-02		4.63E-03	8.30E-03	2.42E-03	1.42E-02
Hydrogen cyanide	2.50E+01	3.58E+00	1.91E+00	1.17E+00	5.54E+00	7.88E-03	8.85E-01	1.56E+00	4.63E-01	2.66E+00
Naphthalene	2.50E+02	8.13E-03	4.53E-03	2.76E-03	1.27E-02	3.80E-04	2.78E-03	3.88E-03	1.44E-03	5.91E-03
Phenol	1.00E+02	8.54E-03	5.55E-03	3.32E-03	1.36E-02	1.76E-03	5.81E-03	5.31E-03	2.97E-03	5.76E-03
Styrene	2.10E+03	1.06E+00	5.62E-01	3.45E-01	1.64E+00		2.57E-01	4.60E-01	1.34E-01	7.86E-01
Toluene	3.75E+03	1.59E-01	8.46E-02	5.19E-02	2.46E-01		3.86E-02	6.92E-02	2.02E-02	1.18E-01
Xylenes (isomers and mixture)	2.18E+03	1.37E-01	7.27E-02	4.46E-02	2.12E-01		3.32E-02	5.95E-02	1.74E-02	1.02E-01
Dinitrotoluene	7.50E+00	9.57E-03	5.08E-03	3.11E-03	1.48E-02	4.97E-06	2.36E-03	4.17E-03	1.23E-03	7.09E-03
Dibutylphthalate	2.50E+01	3.90E-02	2.07E-02	1.27E-02	6.02E-02	8.23E-07	9.45E-03	1.69E-02	4.95E-03	2.89E-02
Antimony	2.50E+00	3.67E-02	1.95E-02	1.19E-02	5.67E-02		8.89E-03	1.59E-02	4.65E-03	2.72E-02
Total Chromium	2.50E+00	3.05E-01	1.62E-01	9.92E-02	4.77E-01	2.38E-04	7.39E-02	1.32E-01	3.87E-02	2.26E-01
Lead	2.50E-01	**2.90E+00**	**1.56E+00**	**9.54E-01**	**4.46E+00**	**2.53E-02**	**8.08E-01**	**1.30E+00**	**4.17E-01**	**2.14E+00**
Nickel	5.00E+00	5.80E-03	3.08E-03	1.89E-03	8.96E-03		1.41E-03	2.52E-03	7.35E-04	4.30E-03
Manganese	2.50E+01	1.18E+01	6.24E+00	3.83E+00	**1.82E+01**		2.85E+00	5.11E+00	1.49E+00	8.73E+00
Arsenic	2.50E+00	1.77E-03	9.61E-04	4.38E-04	2.44E-02	8.09E-04	4.25E-04	7.83E-04	2.36E-04	1.33E-03
Cadmium	2.50E-02	1.14E-02	6.21E-03	2.83E-03	**1.57E-01**	5.23E-03	2.74E-03	5.06E-03	1.53E-03	8.62E-03
Mercury	5.00E-01	5.00E-07	2.71E-07	1.24E-07	6.87E-06	2.28E-07	1.20E-07	2.21E-07	6.66E-08	3.76E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.02E+01	5.44E+00	3.33E+00	1.57E+01	5.07E-02	2.59E+00	4.48E+00	1.35E+00	7.54E+00
Nitrogen dioxide		6.64E-01	4.12E-01	2.47E-01	1.03E+00	9.74E-02	3.88E-01	3.84E-01	1.97E-01	4.58E-01
Particulates (PM-10)	1.50E+02	9.56E+01	4.98E+01	3.12E+01	**3.39E+02**	8.84E+00	2.63E+01	4.47E+01	1.38E+01	6.93E+01
Sulfur dioxide	3.65E+02	2.09E-01	1.48E-01	8.71E-02	3.22E-01	6.07E-02	1.92E-01	1.50E-01	9.70E-02	1.33E-01
Lead **		5.58E-01	3.01E-01	1.84E-01	8.69E-01	6.48E-03	1.60E-01	2.52E-01	8.22E-02	4.10E-01
Indiana HAPs										
1,3-Butadiene		2.82E-03	1.49E-03	9.17E-04	4.35E-03		6.83E-04	1.22E-03	3.57E-04	2.09E-03
1,4-Dichlorobenzene		5.45E-05	2.89E-05	1.77E-05	8.42E-05		1.32E-05	2.37E-05	6.91E-06	4.04E-05
Benzene		4.89E-02	2.64E-02	1.62E-02	7.55E-02	8.00E-04	1.37E-02	2.20E-02	7.13E-03	3.60E-02
Dimethyl phthalate		6.66E-05	3.53E-05	2.17E-05	1.03E-04		1.61E-05	2.89E-05	8.44E-06	4.94E-05
Ethyl benzene		4.65E-03	2.47E-03	1.51E-03	7.18E-03		1.13E-03	2.02E-03	5.90E-04	3.45E-03
Hexane		3.64E-03	1.93E-03	1.18E-03	5.62E-03		8.82E-04	1.58E-03	4.61E-04	2.70E-03
Hydrogen cyanide		6.83E-01	3.63E-01	2.23E-01	1.06E+00	1.65E-03	1.69E-01	2.98E-01	8.85E-02	5.06E-01
Naphthalene		1.58E-03	8.85E-04	5.38E-04	2.43E-03	7.97E-05	5.67E-04	7.62E-04	2.92E-04	1.14E-03
Phenol		1.76E-03	1.16E-03	6.88E-04	2.71E-03	3.69E-04	1.29E-03	1.12E-03	6.52E-04	1.17E-03
Styrene		2.02E-01	1.07E-01	6.57E-02	3.12E-01		4.89E-02	8.77E-02	2.56E-02	1.50E-01
Toluene		3.04E-02	1.61E-02	9.88E-03	4.69E-02		7.36E-03	1.32E-02	3.85E-03	2.25E-02
Xylenes (isomers and mixture)		2.61E-02	1.39E-02	8.50E-03	4.03E-02		6.33E-03	1.13E-02	3.31E-03	1.94E-02
Dinitrotoluene		1.82E-03	9.69E-04	5.94E-04	2.82E-03	1.42E-06	4.50E-04	7.95E-04	2.35E-04	1.35E-03
Dibutylphthalate		7.42E-03	3.94E-03	2.41E-03	1.15E-02	1.95E-07	1.80E-03	3.22E-03	9.42E-04	5.50E-03
Antimony		6.99E-03	3.71E-03	2.27E-03	1.08E-02		1.69E-03	3.04E-03	8.86E-04	5.19E-03
Total Chromium		5.83E-02	3.09E-02	1.90E-02	9.40E-02	1.57E-04	1.41E-02	2.54E-02	7.39E-03	4.32E-02
Lead		5.58E-01	3.01E-01	1.84E-01	8.69E-01	6.48E-03	1.60E-01	2.52E-01	8.22E-02	4.10E-01
Nickel		1.11E-03	5.86E-04	3.60E-04	1.71E-03		2.68E-04	4.80E-04	1.40E-04	8.20E-04
Manganese		2.24E+00	1.19E+00	7.29E-01	3.46E+00		5.43E-01	9.73E-01	2.84E-01	1.66E+00
Arsenic		9.90E-04	4.02E-04	2.99E-04	1.51E-02	5.34E-04	2.48E-04	5.67E-04	1.36E-04	6.55E-04
Cadmium		6.40E-03	2.60E-03	1.93E-03	9.74E-02	3.45E-03	1.60E-03	3.66E-03	8.80E-04	4.23E-03
Mercury		2.79E-07	1.13E-07	8.44E-08	4.25E-06	1.51E-07	7.00E-08	1.60E-07	3.84E-08	1.85E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	4.00E+04	6.04E+02	3.21E+02	1.97E+02	9.34E+02	3.49E-01	1.47E+02	2.63E+02	7.71E+01	4.48E+02
Nitrogen dioxide		2.61E+01	1.42E+01	8.76E+00	4.02E+01	6.70E-01	7.22E+00	1.20E+01	4.16E+00	1.91E+01
Particulates (PM-10)		4.77E+03	2.54E+03	1.56E+03	7.83E+03	3.93E+01	1.17E+03	2.09E+03	6.23E+02	3.53E+03
Sulfur dioxide		3.94E+00	2.33E+00	1.45E+00	6.05E+00	4.17E-01	1.51E+00	2.10E+00	1.03E+00	2.77E+00
Lead **		3.21E+01	1.70E+01	1.05E+01	4.97E+01	8.16E-03	7.80E+00	1.40E+01	4.08E+00	2.38E+01
Indiana HAPs										
1,3-Butadiene		1.69E-01	8.97E-02	5.50E-02	2.61E-01		4.10E-02	7.34E-02	2.14E-02	1.25E-01
1,4-Dichlorobenzene		3.27E-03	1.73E-03	1.06E-03	5.05E-03		7.92E-04	1.42E-03	4.14E-04	2.43E-03
Benzene		2.82E+00	1.50E+00	9.20E-01	4.35E+00	5.50E-03	6.90E-01	1.23E+00	3.64E-01	2.09E+00
Dimethyl phthalate		4.00E-03	2.12E-03	1.30E-03	6.17E-03		9.68E-04	1.74E-03	5.06E-04	2.96E-03
Ethyl benzene		2.79E-01	1.48E-01	9.08E-02	4.31E-01		6.76E-02	1.21E-01	3.54E-02	2.07E-01
Hexane		2.18E-01	1.16E-01	7.11E-02	3.37E-01		5.29E-02	9.49E-02	2.77E-02	1.62E-01
Hydrogen cyanide		4.08E+01	2.16E+01	1.33E+01	6.30E+01	1.14E-02	9.89E+00	1.77E+01	5.18E+00	3.02E+01
Naphthalene		8.33E-02	4.45E-02	2.73E-02	1.29E-01	5.47E-04	2.09E-02	3.67E-02	1.13E-02	6.16E-02
Phenol		5.31E-02	2.97E-02	1.83E-02	8.19E-02	2.54E-03	1.63E-02	2.54E-02	9.96E-03	3.85E-02
Styrene		1.21E+01	6.43E+00	3.94E+00	1.87E+01		2.94E+00	5.26E+00	1.54E+00	8.99E+00
Toluene		1.82E+00	9.67E-01	5.93E-01	2.81E+00		4.41E-01	7.91E-01	2.31E-01	1.35E+00
Xylenes (isomers and mixture)		1.57E+00	8.31E-01	5.10E-01	2.42E+00		3.80E-01	6.81E-01	1.99E-01	1.16E+00
Dinitrotoluene		1.16E-01	6.30E-02	3.87E-02	1.68E-01	1.79E-06	3.11E-02	5.32E-02	1.90E-02	8.47E-02
Dibutylphthalate		4.50E-01	2.39E-01	1.47E-01	6.88E-01	1.91E-07	1.11E-01	1.97E-01	5.96E-02	3.33E-01
Antimony		4.19E-01	2.22E-01	1.36E-01	6.48E-01		1.02E-01	1.82E-01	5.32E-02	3.11E-01
Total Chromium		3.48E+00	1.85E+00	1.13E+00	5.39E+00	6.33E-04	8.43E-01	1.51E+00	4.41E-01	2.58E+00
Lead		3.21E+01	1.70E+01	1.05E+01	4.97E+01	8.16E-03	7.80E+00	1.40E+01	4.08E+00	2.38E+01
Nickel		6.63E-02	3.52E-02	2.16E-02	1.02E-01		1.61E-02	2.88E-02	8.41E-03	4.92E-02
Manganese		1.34E+02	7.13E+01	4.37E+01	2.08E+02		3.26E+01	5.84E+01	1.70E+01	9.97E+01
Arsenic		3.76E-03	2.13E-03	1.79E-03	3.92E-02	2.15E-03	1.29E-03	2.23E-03	1.03E-03	2.97E-03
Cadmium		2.57E-02	1.46E-02	1.22E-02	2.68E-01	1.47E-02	8.86E-03	1.53E-02	7.02E-03	2.03E-02
Mercury		1.06E-06	6.01E-07	5.04E-07	1.11E-05	6.06E-07	3.65E-07	6.30E-07	2.89E-07	8.38E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.82E+02	9.66E+01	5.93E+01	2.81E+02	3.01E-01	4.44E+01	7.92E+01	2.33E+01	1.35E+02
Nitrogen dioxide		8.75E+00	4.92E+00	3.05E+00	1.39E+01	5.78E-01	2.71E+00	4.23E+00	1.67E+00	6.34E+00
Particulates (PM-10)		1.47E+03	7.88E+02	4.90E+02	2.71E+03	3.50E+01	3.70E+02	6.54E+02	2.01E+02	1.09E+03
Sulfur dioxide	1.30E+03	1.76E+00	1.11E+00	6.99E-01	2.98E+00	3.60E-01	7.95E-01	1.03E+00	5.72E-01	1.21E+00
Lead **		9.65E+00	5.12E+00	3.14E+00	1.49E+01	5.91E-03	2.35E+00	4.19E+00	1.23E+00	7.15E+00
Indiana HAPs										
1,3-Butadiene		5.07E-02	2.69E-02	1.65E-02	7.83E-02		1.23E-02	2.20E-02	6.43E-03	3.76E-02
1,4-Dichlorobenzene		9.81E-04	5.20E-04	3.19E-04	1.51E-03		2.38E-04	4.26E-04	1.24E-04	7.28E-04
Benzene		8.53E-01	4.55E-01	2.79E-01	1.32E+00	4.75E-03	2.12E-01	3.74E-01	1.13E-01	6.32E-01
Dimethyl phthalate		1.20E-03	6.36E-04	3.90E-04	1.85E-03		2.90E-04	5.21E-04	1.52E-04	8.89E-04
Ethyl benzene		8.37E-02	4.44E-02	2.72E-02	1.29E-01		2.03E-02	3.64E-02	1.06E-02	6.21E-02
Hexane		6.55E-02	3.48E-02	2.13E-02	1.01E-01		1.59E-02	2.85E-02	8.31E-03	4.86E-02
Hydrogen cyanide		1.22E+01	6.50E+00	3.99E+00	1.89E+01	9.81E-03	2.98E+00	5.32E+00	1.56E+00	9.08E+00
Naphthalene		2.57E-02	1.39E-02	8.54E-03	4.01E-02	4.73E-04	6.72E-03	1.15E-02	3.72E-03	1.90E-02
Phenol		1.95E-02	1.14E-02	7.10E-03	3.16E-02	2.19E-03	6.96E-03	1.01E-02	4.59E-03	1.38E-02
Styrene		3.64E+00	1.93E+00	1.18E+00	5.62E+00		8.81E-01	1.58E+00	4.61E-01	2.70E+00
Toluene		5.47E-01	2.90E-01	1.78E-01	8.44E-01		1.32E-01	2.37E-01	6.93E-02	4.05E-01
Xylenes (isomers and mixture)		4.70E-01	2.49E-01	1.53E-01	7.26E-01		1.14E-01	2.04E-01	5.96E-02	3.49E-01
Dinitrotoluene		3.71E-02	2.05E-02	1.26E-02	5.05E-02	1.42E-06	1.07E-02	1.77E-02	7.26E-03	2.66E-02
Dibutylphthalate		1.36E-01	7.27E-02	4.46E-02	2.06E-01	5.75E-08	3.40E-02	6.01E-02	1.88E-02	1.00E-01
Antimony		1.26E-01	6.67E-02	4.09E-02	1.94E-01		3.05E-02	5.46E-02	1.59E-02	9.33E-02
Total Chromium		1.04E+00	5.54E-01	3.40E-01	1.62E+00	5.70E-04	2.53E-01	4.54E-01	1.33E-01	7.75E-01
Lead		9.65E+00	5.12E+00	3.14E+00	1.49E+01	5.91E-03	2.35E+00	4.19E+00	1.23E+00	7.15E+00
Nickel		1.99E-02	1.06E-02	6.47E-03	3.07E-02		4.82E-03	8.64E-03	2.52E-03	1.48E-02
Manganese		4.03E+01	2.14E+01	1.31E+01	6.23E+01		9.77E+00	1.75E+01	5.11E+00	2.99E+01
Arsenic		3.38E-03	1.92E-03	1.61E-03	3.53E-02	1.93E-03	1.17E-03	2.01E-03	9.24E-04	2.67E-03
Cadmium		2.31E-02	1.31E-02	1.10E-02	2.41E-01	1.32E-02	7.97E-03	1.37E-02	6.32E-03	1.83E-02
Mercury		9.54E-07	5.41E-07	4.54E-07	9.95E-06	5.45E-07	3.29E-07	5.67E-07	2.61E-07	7.54E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	1.00E+04	5.32E+01	2.83E+01	1.73E+01	8.23E+01	1.44E-01	1.30E+01	2.32E+01	6.87E+00	3.94E+01
Nitrogen dioxide		2.81E+00	1.62E+00	1.01E+00	4.60E+00	2.76E-01	9.39E-01	1.41E+00	6.05E-01	2.02E+00
Particulates (PM-10)		4.45E+02	2.38E+02	1.44E+02	9.95E+02	1.51E+01	1.11E+02	1.96E+02	5.99E+01	3.29E+02
Sulfur dioxide		6.75E-01	4.37E-01	2.78E-01	1.20E+00	1.72E-01	3.24E-01	4.11E-01	2.40E-01	4.60E-01
Lead **		2.82E+00	1.50E+00	9.17E-01	4.38E+00	2.95E-03	6.90E-01	1.23E+00	3.61E-01	2.09E+00
Indiana HAPs										
1,3-Butadiene	1.10E+04	1.48E-02	7.85E-03	4.81E-03	2.29E-02		3.58E-03	6.42E-03	1.88E-03	1.10E-02
1,4-Dichlorobenzene	2.25E+03	2.86E-04	1.52E-04	9.31E-05	4.42E-04		6.93E-05	1.24E-04	3.63E-05	2.12E-04
Benzene	1.60E+01	2.51E-01	1.34E-01	8.25E-02	3.90E-01	2.27E-03	6.29E-02	1.11E-01	3.39E-02	1.86E-01
Dimethyl phthalate	2.50E+01	3.50E-04	1.85E-04	1.14E-04	5.40E-04		8.47E-05	1.52E-04	4.43E-05	2.59E-04
Ethyl benzene	2.18E+03	2.44E-02	1.30E-02	7.94E-03	3.77E-02		5.91E-03	1.06E-02	3.09E-03	1.81E-02
Hexane	9.00E+03	1.91E-02	1.01E-02	6.22E-03	2.95E-02		4.63E-03	8.30E-03	2.42E-03	1.42E-02
Hydrogen cyanide	2.50E+01	3.58E+00	1.90E+00	1.16E+00	5.53E+00	4.68E-03	8.70E-01	1.56E+00	4.57E-01	2.65E+00
Naphthalene	2.50E+02	7.72E-03	4.20E-03	2.59E-03	1.21E-02	2.26E-04	2.08E-03	3.51E-03	1.18E-03	5.68E-03
Phenol	1.00E+02	6.66E-03	4.01E-03	2.53E-03	1.13E-02	1.05E-03	2.59E-03	3.61E-03	1.79E-03	4.69E-03
Styrene	2.10E+03	1.06E+00	5.62E-01	3.45E-01	1.64E+00		2.57E-01	4.60E-01	1.34E-01	7.86E-01
Toluene	3.75E+03	1.59E-01	8.46E-02	5.19E-02	2.46E-01		3.86E-02	6.92E-02	2.02E-02	1.18E-01
Xylenes (isomers and mixture)	2.18E+03	1.37E-01	7.27E-02	4.46E-02	2.12E-01		3.32E-02	5.95E-02	1.74E-02	1.02E-01
Dinitrotoluene	7.50E+00	1.15E-02	6.43E-03	3.95E-03	1.47E-02	6.10E-07	3.54E-03	5.67E-03	2.58E-03	8.10E-03
Dibutylphthalate	2.50E+01	4.01E-02	2.15E-02	1.32E-02	6.02E-02	3.35E-08	1.02E-02	1.78E-02	5.76E-03	2.95E-02
Antimony	2.50E+00	3.67E-02	1.95E-02	1.19E-02	5.67E-02		8.89E-03	1.59E-02	4.65E-03	2.72E-02
Total Chromium	2.50E+00	3.05E-01	1.62E-01	9.92E-02	4.77E-01	2.38E-04	7.39E-02	1.32E-01	3.87E-02	2.26E-01
Lead	2.50E-01	**2.82E+00**	**1.50E+00**	**9.17E-01**	**4.38E+00**	2.95E-03	**6.90E-01**	**1.23E+00**	**3.61E-01**	**2.09E+00**
Nickel	5.00E+00	5.80E-03	3.08E-03	1.89E-03	8.96E-03		1.41E-03	2.52E-03	7.35E-04	4.30E-03
Manganese	2.50E+01	1.18E+01	6.24E+00	3.83E+00	**1.82E+01**		2.85E+00	5.11E+00	1.49E+00	8.73E+00
Arsenic	2.50E+00	1.77E-03	9.61E-04	4.38E-04	2.44E-02	8.09E-04	4.25E-04	7.83E-04	2.36E-04	1.33E-03
Cadmium	2.50E-02	1.14E-02	6.21E-03	2.83E-03	**1.57E-01**	5.23E-03	2.74E-03	5.06E-03	1.53E-03	8.62E-03
Mercury	5.00E-01	5.00E-07	2.71E-07	1.24E-07	6.87E-06	2.28E-07	1.20E-07	2.21E-07	6.66E-08	3.76E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.01E+01	5.40E+00	3.31E+00	1.57E+01	2.74E-02	2.49E+00	4.43E+00	1.32E+00	7.51E+00
Nitrogen dioxide		5.64E-01	3.29E-01	2.05E-01	8.76E-01	5.26E-02	1.97E-01	2.91E-01	1.36E-01	4.00E-01
Particulates (PM-10)	1.50E+02	9.43E+01	4.87E+01	3.06E+01	**3.37E+02**	8.24E+00	2.38E+01	4.35E+01	1.30E+01	6.85E+01
Sulfur dioxide	3.65E+02	1.46E-01	9.59E-02	6.08E-02	2.29E-01	3.28E-02	7.29E-02	9.24E-02	5.84E-02	9.71E-02
Lead **		5.38E-01	2.85E-01	1.75E-01	8.51E-01	1.16E-03	1.32E-01	2.34E-01	6.88E-02	3.99E-01
Indiana HAPs										
1,3-Butadiene		2.82E-03	1.49E-03	9.17E-04	4.35E-03		6.83E-04	1.22E-03	3.57E-04	2.09E-03
1,4-Dichlorobenzene		5.45E-05	2.89E-05	1.77E-05	8.42E-05		1.32E-05	2.37E-05	6.91E-06	4.04E-05
Benzene		4.81E-02	2.57E-02	1.58E-02	7.43E-02	4.32E-04	1.21E-02	2.13E-02	6.62E-03	3.55E-02
Dimethyl phthalate		6.66E-05	3.53E-05	2.17E-05	1.03E-04		1.61E-05	2.89E-05	8.44E-06	4.94E-05
Ethyl benzene		4.65E-03	2.47E-03	1.51E-03	7.18E-03		1.13E-03	2.02E-03	5.90E-04	3.45E-03
Hexane		3.64E-03	1.93E-03	1.18E-03	5.62E-03		8.82E-04	1.58E-03	4.61E-04	2.70E-03
Hydrogen cyanide		6.81E-01	3.62E-01	2.22E-01	1.05E+00	8.92E-04	1.66E-01	2.97E-01	8.75E-02	5.05E-01
Naphthalene		1.49E-03	8.17E-04	5.04E-04	2.31E-03	4.30E-05	4.11E-04	6.87E-04	2.42E-04	1.09E-03
Phenol		1.38E-03	8.42E-04	5.29E-04	2.14E-03	1.99E-04	5.62E-04	7.74E-04	4.17E-04	9.52E-04
Styrene		2.02E-01	1.07E-01	6.57E-02	3.12E-01		4.89E-02	8.77E-02	2.56E-02	1.50E-01
Toluene		3.04E-02	1.61E-02	9.88E-03	4.69E-02		7.36E-03	1.32E-02	3.85E-03	2.25E-02
Xylenes (isomers and mixture)		2.61E-02	1.39E-02	8.50E-03	4.03E-02		6.33E-03	1.13E-02	3.31E-03	1.94E-02
Dinitrotoluene		2.42E-03	1.40E-03	8.58E-04	2.82E-03	3.77E-07	8.27E-04	1.27E-03	6.63E-04	1.67E-03
Dibutylphthalate		7.78E-03	4.20E-03	2.57E-03	1.15E-02	6.39E-09	2.03E-03	3.51E-03	1.20E-03	5.70E-03
Antimony		6.99E-03	3.71E-03	2.27E-03	1.08E-02		1.69E-03	3.04E-03	8.86E-04	5.19E-03
Total Chromium		5.83E-02	3.09E-02	1.90E-02	9.40E-02	1.57E-04	1.41E-02	2.54E-02	7.39E-03	4.32E-02
Lead		5.38E-01	2.85E-01	1.75E-01	8.51E-01	1.16E-03	1.32E-01	2.34E-01	6.88E-02	3.99E-01
Nickel		1.11E-03	5.86E-04	3.60E-04	1.71E-03		2.68E-04	4.80E-04	1.40E-04	8.20E-04
Manganese		2.24E+00	1.19E+00	7.29E-01	3.46E+00		5.43E-01	9.73E-01	2.84E-01	1.66E+00
Arsenic		9.90E-04	4.02E-04	2.99E-04	1.51E-02	5.34E-04	2.48E-04	5.67E-04	1.36E-04	6.55E-04
Cadmium		6.40E-03	2.60E-03	1.93E-03	9.74E-02	3.45E-03	1.60E-03	3.66E-03	8.80E-04	4.23E-03
Mercury		2.79E-07	1.13E-07	8.44E-08	4.25E-06	1.51E-07	7.00E-08	1.60E-07	3.84E-08	1.85E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	4.00E+04	6.04E+02	3.21E+02	1.97E+02	9.34E+02	3.49E-01	1.47E+02	2.63E+02	7.69E+01	4.48E+02
Nitrogen dioxide		2.55E+01	1.38E+01	8.51E+00	4.02E+01	6.70E-01	6.86E+00	1.15E+01	3.75E+00	1.88E+01
Particulates (PM-10)		4.76E+03	2.53E+03	1.56E+03	7.83E+03	3.93E+01	1.17E+03	2.08E+03	6.18E+02	3.53E+03
Sulfur dioxide		3.59E+00	2.08E+00	1.29E+00	6.05E+00	4.17E-01	1.29E+00	1.82E+00	7.76E-01	2.58E+00
Lead **		3.21E+01	1.70E+01	1.05E+01	4.97E+01	8.16E-03	7.80E+00	1.40E+01	4.08E+00	2.38E+01
Indiana HAPs										
1,3-Butadiene		1.69E-01	8.97E-02	5.50E-02	2.61E-01		4.10E-02	7.34E-02	2.14E-02	1.25E-01
1,4-Dichlorobenzene		3.27E-03	1.73E-03	1.06E-03	5.05E-03		7.92E-04	1.42E-03	4.14E-04	2.43E-03
Benzene		2.82E+00	1.50E+00	9.18E-01	4.35E+00	5.50E-03	6.87E-01	1.23E+00	3.61E-01	2.09E+00
Dimethyl phthalate		4.00E-03	2.12E-03	1.30E-03	6.17E-03		9.68E-04	1.74E-03	5.06E-04	2.96E-03
Ethyl benzene		2.79E-01	1.48E-01	9.08E-02	4.31E-01		6.76E-02	1.21E-01	3.54E-02	2.07E-01
Hexane		2.18E-01	1.16E-01	7.11E-02	3.37E-01		5.29E-02	9.49E-02	2.77E-02	1.62E-01
Hydrogen cyanide		4.07E+01	2.16E+01	1.33E+01	6.30E+01	1.14E-02	9.88E+00	1.77E+01	5.17E+00	3.02E+01
Naphthalene		8.28E-02	4.42E-02	2.71E-02	1.29E-01	5.47E-04	2.06E-02	3.63E-02	1.09E-02	6.13E-02
Phenol		5.10E-02	2.81E-02	1.74E-02	8.19E-02	2.54E-03	1.49E-02	2.37E-02	8.42E-03	3.73E-02
Styrene		1.21E+01	6.43E+00	3.94E+00	1.87E+01		2.94E+00	5.26E+00	1.54E+00	8.99E+00
Toluene		1.82E+00	9.67E-01	5.93E-01	2.81E+00		4.41E-01	7.91E-01	2.31E-01	1.35E+00
Xylenes (isomers and mixture)		1.57E+00	8.31E-01	5.10E-01	2.42E+00		3.80E-01	6.81E-01	1.99E-01	1.16E+00
2,4-Dinitrotoluene		6.22E-02	3.32E-02	2.04E-02	9.41E-02	1.63E-06	1.56E-02	2.75E-02	8.62E-03	4.59E-02
2,6-Dinitrotoluene		4.93E-02	2.64E-02	1.62E-02	7.42E-02	1.59E-07	1.25E-02	2.19E-02	6.99E-03	3.63E-02
Dinitrotoluene		1.11E-01	5.96E-02	3.65E-02	1.68E-01	1.79E-06	2.81E-02	4.93E-02	1.56E-02	8.22E-02
Dibutylphthalate		4.47E-01	2.37E-01	1.45E-01	6.88E-01	1.91E-07	1.09E-01	1.95E-01	5.75E-02	3.31E-01
Antimony		4.19E-01	2.22E-01	1.36E-01	6.48E-01		1.02E-01	1.82E-01	5.32E-02	3.11E-01
Total Chromium		3.48E+00	1.85E+00	1.13E+00	5.39E+00	6.33E-04	8.43E-01	1.51E+00	4.41E-01	2.58E+00
Lead		3.21E+01	1.70E+01	1.05E+01	4.97E+01	8.16E-03	7.80E+00	1.40E+01	4.08E+00	2.38E+01
Nickel		6.63E-02	3.52E-02	2.16E-02	1.02E-01		1.61E-02	2.88E-02	8.41E-03	4.92E-02
Manganese		1.34E+02	7.13E+01	4.37E+01	2.08E+02		3.26E+01	5.84E+01	1.70E+01	9.97E+01
Arsenic		3.76E-03	2.13E-03	1.79E-03	3.92E-02	2.15E-03	1.29E-03	2.23E-03	1.03E-03	2.97E-03
Cadmium		2.57E-02	1.46E-02	1.22E-02	2.68E-01	1.47E-02	8.86E-03	1.53E-02	7.02E-03	2.03E-02
Mercury		1.06E-06	6.01E-07	5.04E-07	1.11E-05	6.06E-07	3.65E-07	6.30E-07	2.89E-07	8.38E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.82E+02	9.65E+01	5.92E+01	2.81E+02	3.01E-01	4.42E+01	7.90E+01	2.32E+01	1.35E+02
Nitrogen dioxide		8.41E+00	4.68E+00	2.90E+00	1.39E+01	5.78E-01	2.50E+00	3.95E+00	1.43E+00	6.16E+00
Particulates (PM-10)		1.47E+03	7.84E+02	4.87E+02	2.71E+03	3.50E+01	3.67E+02	6.50E+02	1.98E+02	1.09E+03
Sulfur dioxide	1.30E+03	1.55E+00	9.55E-01	6.05E-01	2.98E+00	3.60E-01	6.61E-01	8.59E-01	4.21E-01	1.10E+00
Lead **		9.65E+00	5.12E+00	3.14E+00	1.49E+01	5.91E-03	2.35E+00	4.19E+00	1.23E+00	7.15E+00
Indiana HAPs										
1,3-Butadiene		5.07E-02	2.69E-02	1.65E-02	7.83E-02		1.23E-02	2.20E-02	6.43E-03	3.76E-02
1,4-Dichlorobenzene		9.81E-04	5.20E-04	3.19E-04	1.51E-03		2.38E-04	4.26E-04	1.24E-04	7.28E-04
Benzene		8.51E-01	4.53E-01	2.78E-01	1.32E+00	4.75E-03	2.10E-01	3.72E-01	1.11E-01	6.30E-01
Dimethyl phthalate		1.20E-03	6.36E-04	3.90E-04	1.85E-03		2.90E-04	5.21E-04	1.52E-04	8.89E-04
Ethyl benzene		8.37E-02	4.44E-02	2.72E-02	1.29E-01		2.03E-02	3.64E-02	1.06E-02	6.21E-02
Hexane		6.55E-02	3.48E-02	2.13E-02	1.01E-01		1.59E-02	2.85E-02	8.31E-03	4.86E-02
Hydrogen cyanide		1.22E+01	6.50E+00	3.98E+00	1.89E+01	9.81E-03	2.97E+00	5.32E+00	1.56E+00	9.08E+00
Naphthalene		2.55E-02	1.37E-02	8.42E-03	4.01E-02	4.73E-04	6.55E-03	1.13E-02	3.52E-03	1.88E-02
Phenol		1.82E-02	1.05E-02	6.53E-03	3.16E-02	2.19E-03	6.14E-03	9.03E-03	3.67E-03	1.32E-02
Styrene		3.64E+00	1.93E+00	1.18E+00	5.62E+00		8.81E-01	1.58E+00	4.61E-01	2.70E+00
Toluene		5.47E-01	2.90E-01	1.78E-01	8.44E-01		1.32E-01	2.37E-01	6.93E-02	4.05E-01
Xylenes (isomers and mixture)		4.70E-01	2.49E-01	1.53E-01	7.26E-01		1.14E-01	2.04E-01	5.96E-02	3.49E-01
Dinitrotoluene		3.42E-02	1.84E-02	1.13E-02	5.05E-02	1.42E-06	8.88E-03	1.54E-02	5.20E-03	2.50E-02
Dibutylphthalate		1.34E-01	7.15E-02	4.38E-02	2.06E-01	5.74E-08	3.29E-02	5.87E-02	1.76E-02	9.95E-02
Antimony		1.26E-01	6.67E-02	4.09E-02	1.94E-01		3.05E-02	5.46E-02	1.59E-02	9.33E-02
Total Chromium		1.04E+00	5.54E-01	3.40E-01	1.62E+00	5.70E-04	2.53E-01	4.54E-01	1.33E-01	7.75E-01
Lead		9.65E+00	5.12E+00	3.14E+00	1.49E+01	5.91E-03	2.35E+00	4.19E+00	1.23E+00	7.15E+00
Nickel		1.99E-02	1.06E-02	6.47E-03	3.07E-02		4.82E-03	8.64E-03	2.52E-03	1.48E-02
Manganese		4.03E+01	2.14E+01	1.31E+01	6.23E+01		9.77E+00	1.75E+01	5.11E+00	2.99E+01
Arsenic		3.38E-03	1.92E-03	1.61E-03	3.53E-02	1.93E-03	1.17E-03	2.01E-03	9.24E-04	2.67E-03
Cadmium		2.31E-02	1.31E-02	1.10E-02	2.41E-01	1.32E-02	7.97E-03	1.37E-02	6.32E-03	1.83E-02
Mercury		9.54E-07	5.41E-07	4.54E-07	9.95E-06	5.45E-07	3.29E-07	5.67E-07	2.61E-07	7.54E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	1.00E+04	5.31E+01	2.82E+01	1.73E+01	8.23E+01	1.44E-01	1.30E+01	2.31E+01	6.81E+00	3.94E+01
Nitrogen dioxide		2.66E+00	1.51E+00	9.44E-01	4.60E+00	2.76E-01	8.45E-01	1.29E+00	4.99E-01	1.94E+00
Particulates (PM-10)		4.43E+02	2.36E+02	1.43E+02	9.95E+02	1.51E+01	1.10E+02	1.94E+02	5.84E+01	3.28E+02
Sulfur dioxide		5.82E-01	3.71E-01	2.37E-01	1.20E+00	1.72E-01	2.65E-01	3.37E-01	1.74E-01	4.10E-01
Lead **		2.82E+00	1.50E+00	9.17E-01	4.38E+00	2.95E-03	6.90E-01	1.23E+00	3.61E-01	2.09E+00
Indiana HAPs										
1,3-Butadiene	1.10E+04	1.48E-02	7.85E-03	4.81E-03	2.29E-02		3.58E-03	6.42E-03	1.88E-03	1.10E-02
1,4-Dichlorobenzene	2.25E+03	2.86E-04	1.52E-04	9.31E-05	4.42E-04		6.93E-05	1.24E-04	3.63E-05	2.12E-04
Benzene	1.60E+01	2.50E-01	1.33E-01	8.19E-02	3.90E-01	2.27E-03	6.22E-02	1.10E-01	3.30E-02	1.85E-01
Dimethyl phthalate	2.50E+01	3.50E-04	1.85E-04	1.14E-04	5.40E-04		8.47E-05	1.52E-04	4.43E-05	2.59E-04
Ethyl benzene	2.18E+03	2.44E-02	1.30E-02	7.94E-03	3.77E-02		5.91E-03	1.06E-02	3.09E-03	1.81E-02
Hexane	9.00E+03	1.91E-02	1.01E-02	6.22E-03	2.95E-02		4.63E-03	8.30E-03	2.42E-03	1.42E-02
Hydrogen cyanide	2.50E+01	3.57E+00	1.90E+00	1.16E+00	5.53E+00	4.68E-03	8.69E-01	1.55E+00	4.56E-01	2.65E+00
Naphthalene	2.50E+02	7.60E-03	4.11E-03	2.54E-03	1.21E-02	2.26E-04	2.00E-03	3.41E-03	1.09E-03	5.61E-03
Phenol	1.00E+02	6.10E-03	3.61E-03	2.28E-03	1.13E-02	1.05E-03	2.23E-03	3.16E-03	1.38E-03	4.39E-03
Styrene	2.10E+03	1.06E+00	5.62E-01	3.45E-01	1.64E+00		2.57E-01	4.60E-01	1.34E-01	7.86E-01
Toluene	3.75E+03	1.59E-01	8.46E-02	5.19E-02	2.46E-01		3.86E-02	6.92E-02	2.02E-02	1.18E-01
Xylenes (isomers and mixture)	2.18E+03	1.37E-01	7.27E-02	4.46E-02	2.12E-01		3.32E-02	5.95E-02	1.74E-02	1.02E-01
Dinitrotoluene	7.50E+00	1.02E-02	5.52E-03	3.39E-03	1.47E-02	6.10E-07	2.74E-03	4.66E-03	1.67E-03	7.42E-03
Dibutylphthalate	2.50E+01	3.93E-02	2.09E-02	1.28E-02	6.02E-02	3.35E-08	9.69E-03	1.72E-02	5.22E-03	2.91E-02
Antimony	2.50E+00	3.67E-02	1.95E-02	1.19E-02	5.67E-02		8.89E-03	1.59E-02	4.65E-03	2.72E-02
Total Chromium	2.50E+00	3.05E-01	1.62E-01	9.92E-02	4.77E-01	2.38E-04	7.39E-02	1.32E-01	3.87E-02	2.26E-01
Lead	2.50E-01	**2.82E+00**	**1.50E+00**	**9.17E-01**	**4.38E+00**	2.95E-03	**6.90E-01**	**1.23E+00**	**3.61E-01**	**2.09E+00**
Nickel	5.00E+00	5.80E-03	3.08E-03	1.89E-03	8.96E-03		1.41E-03	2.52E-03	7.35E-04	4.30E-03
Manganese	2.50E+01	1.18E+01	6.24E+00	3.83E+00	**1.82E+01**		2.85E+00	5.11E+00	1.49E+00	8.73E+00
Arsenic	2.50E+00	1.77E-03	9.61E-04	4.38E-04	2.44E-02	8.09E-04	4.25E-04	7.83E-04	2.36E-04	1.33E-03
Cadmium	2.50E-02	1.14E-02	6.21E-03	2.83E-03	1.57E-01	5.23E-03	2.74E-03	5.06E-03	1.53E-03	8.62E-03
Mercury	5.00E-01	5.00E-07	2.71E-07	1.24E-07	6.87E-06	2.28E-07	1.20E-07	2.21E-07	6.66E-08	3.76E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.01E+01	5.38E+00	3.30E+00	1.57E+01	2.74E-02	2.47E+00	4.41E+00	1.30E+00	7.50E+00
Nitrogen dioxide		5.17E-01	2.95E-01	1.84E-01	8.76E-01	5.26E-02	1.67E-01	2.54E-01	1.02E-01	3.75E-01
Particulates (PM-10)	1.50E+02	9.36E+01	4.82E+01	3.03E+01	**3.37E+02**	8.24E+00	2.34E+01	4.30E+01	1.25E+01	6.82E+01
Sulfur dioxide	3.65E+02	1.17E-01	7.48E-02	4.78E-02	2.29E-01	3.28E-02	5.42E-02	6.89E-02	3.73E-02	8.13E-02
Lead **		5.38E-01	2.85E-01	1.75E-01	8.51E-01	1.16E-03	1.32E-01	2.34E-01	6.88E-02	3.99E-01
Indiana HAPs										
1,3-Butadiene		2.82E-03	1.49E-03	9.17E-04	4.35E-03		6.83E-04	1.22E-03	3.57E-04	2.09E-03
1,4-Dichlorobenzene		5.45E-05	2.89E-05	1.77E-05	8.42E-05		1.32E-05	2.37E-05	6.91E-06	4.04E-05
Benzene		4.77E-02	2.55E-02	1.56E-02	7.43E-02	4.32E-04	1.19E-02	2.09E-02	6.34E-03	3.53E-02
Dimethyl phthalate		6.66E-05	3.53E-05	2.17E-05	1.03E-04		1.61E-05	2.89E-05	8.44E-06	4.94E-05
Ethyl benzene		4.65E-03	2.47E-03	1.51E-03	7.18E-03		1.13E-03	2.02E-03	5.90E-04	3.45E-03
Hexane		3.64E-03	1.93E-03	1.18E-03	5.62E-03		8.82E-04	1.58E-03	4.61E-04	2.70E-03
Hydrogen cyanide		6.81E-01	3.61E-01	2.22E-01	1.05E+00	8.92E-04	1.66E-01	2.96E-01	8.69E-02	5.05E-01
Naphthalene		1.46E-03	7.89E-04	4.86E-04	2.31E-03	4.30E-05	3.87E-04	6.56E-04	2.14E-04	1.07E-03
Phenol		1.20E-03	7.13E-04	4.49E-04	2.14E-03	1.99E-04	4.48E-04	6.31E-04	2.89E-04	8.55E-04
Styrene		2.02E-01	1.07E-01	6.57E-02	3.12E-01		4.89E-02	8.77E-02	2.56E-02	1.50E-01
Toluene		3.04E-02	1.61E-02	9.88E-03	4.69E-02		7.36E-03	1.32E-02	3.85E-03	2.25E-02
Xylenes (isomers and mixture)		2.61E-02	1.39E-02	8.50E-03	4.03E-02		6.33E-03	1.13E-02	3.31E-03	1.94E-02
Dinitrotoluene		2.02E-03	1.11E-03	6.81E-04	2.82E-03	3.77E-07	5.73E-04	9.53E-04	3.76E-04	1.46E-03
Dibutylphthalate		7.54E-03	4.02E-03	2.47E-03	1.15E-02	6.38E-09	1.88E-03	3.32E-03	1.03E-03	5.57E-03
Antimony		6.99E-03	3.71E-03	2.27E-03	1.08E-02		1.69E-03	3.04E-03	8.86E-04	5.19E-03
Total Chromium		5.83E-02	3.09E-02	1.90E-02	9.40E-02	1.57E-04	1.41E-02	2.54E-02	7.39E-03	4.32E-02
Lead		5.38E-01	2.85E-01	1.75E-01	8.51E-01	1.16E-03	1.32E-01	2.34E-01	6.88E-02	3.99E-01
Nickel		1.11E-03	5.86E-04	3.60E-04	1.71E-03		2.68E-04	4.80E-04	1.40E-04	8.20E-04
Manganese		2.24E+00	1.19E+00	7.29E-01	3.46E+00		5.43E-01	9.73E-01	2.84E-01	1.66E+00
Arsenic		9.90E-04	4.02E-04	2.99E-04	1.51E-02	5.34E-04	2.48E-04	5.67E-04	1.36E-04	6.55E-04
Cadmium		6.40E-03	2.60E-03	1.93E-03	9.74E-02	3.45E-03	1.60E-03	3.66E-03	8.80E-04	4.23E-03
Mercury		2.79E-07	1.13E-07	8.44E-08	4.25E-06	1.51E-07	7.00E-08	1.60E-07	3.84E-08	1.85E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	4.00E+04	6.04E+02	3.21E+02	1.97E+02	9.34E+02	3.49E-01	1.47E+02	2.63E+02	7.71E+01	4.48E+02
Nitrogen dioxide		2.61E+01	1.42E+01	8.76E+00	4.02E+01	6.70E-01	7.22E+00	1.20E+01	4.16E+00	1.91E+01
Particulates (PM-10)		4.77E+03	2.54E+03	1.56E+03	7.83E+03	3.93E+01	1.17E+03	2.09E+03	6.23E+02	3.53E+03
Sulfur dioxide		3.94E+00	2.33E+00	1.45E+00	6.05E+00	4.17E-01	1.51E+00	2.10E+00	1.03E+00	2.77E+00
Lead **		3.21E+01	1.70E+01	1.05E+01	4.97E+01	8.16E-03	7.80E+00	1.40E+01	4.08E+00	2.38E+01
Indiana HAPs										
1,3-Butadiene		1.69E-01	8.97E-02	5.50E-02	2.61E-01		4.10E-02	7.34E-02	2.14E-02	1.25E-01
1,4-Dichlorobenzene		3.27E-03	1.73E-03	1.06E-03	5.05E-03		7.92E-04	1.42E-03	4.14E-04	2.43E-03
Benzene		2.82E+00	1.50E+00	9.20E-01	4.35E+00	5.50E-03	6.90E-01	1.23E+00	3.64E-01	2.09E+00
Dimethyl phthalate		4.00E-03	2.12E-03	1.30E-03	6.17E-03		9.68E-04	1.74E-03	5.06E-04	2.96E-03
Ethyl benzene		2.79E-01	1.48E-01	9.08E-02	4.31E-01		6.76E-02	1.21E-01	3.54E-02	2.07E-01
Hexane		2.18E-01	1.16E-01	7.11E-02	3.37E-01		5.29E-02	9.49E-02	2.77E-02	1.62E-01
Hydrogen cyanide		4.08E+01	2.16E+01	1.33E+01	6.30E+01	1.14E-02	9.89E+00	1.77E+01	5.18E+00	3.02E+01
Naphthalene		8.33E-02	4.45E-02	2.73E-02	1.29E-01	5.47E-04	2.09E-02	3.67E-02	1.13E-02	6.16E-02
Phenol		5.31E-02	2.97E-02	1.83E-02	8.19E-02	2.54E-03	1.63E-02	2.54E-02	9.96E-03	3.85E-02
Styrene		1.21E+01	6.43E+00	3.94E+00	1.87E+01		2.94E+00	5.26E+00	1.54E+00	8.99E+00
Toluene		1.82E+00	9.67E-01	5.93E-01	2.81E+00		4.41E-01	7.91E-01	2.31E-01	1.35E+00
Xylenes (isomers and mixture)		1.57E+00	8.31E-01	5.10E-01	2.42E+00		3.80E-01	6.81E-01	1.99E-01	1.16E+00
Dinitrotoluene		1.16E-01	6.30E-02	3.87E-02	1.68E-01	1.79E-06	3.11E-02	5.32E-02	1.90E-02	8.47E-02
Dibutylphthalate		4.50E-01	2.39E-01	1.47E-01	6.88E-01	1.91E-07	1.11E-01	1.97E-01	5.96E-02	3.33E-01
Antimony		4.19E-01	2.22E-01	1.36E-01	6.48E-01		1.02E-01	1.82E-01	5.32E-02	3.11E-01
Total Chromium		3.48E+00	1.85E+00	1.13E+00	5.39E+00	6.33E-04	8.43E-01	1.51E+00	4.41E-01	2.58E+00
Lead		3.21E+01	1.70E+01	1.05E+01	4.97E+01	8.16E-03	7.80E+00	1.40E+01	4.08E+00	2.38E+01
Nickel		6.63E-02	3.52E-02	2.16E-02	1.02E-01		1.61E-02	2.88E-02	8.41E-03	4.92E-02
Manganese		1.34E+02	7.13E+01	4.37E+01	2.08E+02		3.26E+01	5.84E+01	1.70E+01	9.97E+01
Arsenic		3.76E-03	2.13E-03	1.79E-03	3.92E-02	2.15E-03	1.29E-03	2.23E-03	1.03E-03	2.97E-03
Cadmium		2.57E-02	1.46E-02	1.22E-02	2.68E-01	1.47E-02	8.86E-03	1.53E-02	7.02E-03	2.03E-02
Mercury		1.06E-06	6.01E-07	5.04E-07	1.11E-05	6.06E-07	3.65E-07	6.30E-07	2.89E-07	8.38E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.82E+02	9.66E+01	5.93E+01	2.81E+02	3.01E-01	4.44E+01	7.92E+01	2.33E+01	1.35E+02
Nitrogen dioxide		8.75E+00	4.92E+00	3.05E+00	1.39E+01	5.78E-01	2.71E+00	4.23E+00	1.67E+00	6.34E+00
Particulates (PM-10)		1.47E+03	7.88E+02	4.90E+02	2.71E+03	3.50E+01	3.70E+02	6.54E+02	2.01E+02	1.09E+03
Sulfur dioxide	1.30E+03	1.76E+00	1.11E+00	6.99E-01	2.98E+00	3.60E-01	7.95E-01	1.03E+00	5.72E-01	1.21E+00
Lead **		9.65E+00	5.12E+00	3.14E+00	1.49E+01	5.91E-03	2.35E+00	4.19E+00	1.23E+00	7.15E+00
Indiana HAPs										
1,3-Butadiene		5.07E-02	2.69E-02	1.65E-02	7.83E-02		1.23E-02	2.20E-02	6.43E-03	3.76E-02
1,4-Dichlorobenzene		9.81E-04	5.20E-04	3.19E-04	1.51E-03		2.38E-04	4.26E-04	1.24E-04	7.28E-04
Benzene		8.53E-01	4.55E-01	2.79E-01	1.32E+00	4.75E-03	2.12E-01	3.74E-01	1.13E-01	6.32E-01
Dimethyl phthalate		1.20E-03	6.36E-04	3.90E-04	1.85E-03		2.90E-04	5.21E-04	1.52E-04	8.89E-04
Ethyl benzene		8.37E-02	4.44E-02	2.72E-02	1.29E-01		2.03E-02	3.64E-02	1.06E-02	6.21E-02
Hexane		6.55E-02	3.48E-02	2.13E-02	1.01E-01		1.59E-02	2.85E-02	8.31E-03	4.86E-02
Hydrogen cyanide		1.22E+01	6.50E+00	3.99E+00	1.89E+01	9.81E-03	2.98E+00	5.32E+00	1.56E+00	9.08E+00
Naphthalene		2.57E-02	1.39E-02	8.54E-03	4.01E-02	4.73E-04	6.72E-03	1.15E-02	3.72E-03	1.90E-02
Phenol		1.95E-02	1.14E-02	7.10E-03	3.16E-02	2.19E-03	6.96E-03	1.01E-02	4.59E-03	1.38E-02
Styrene		3.64E+00	1.93E+00	1.18E+00	5.62E+00		8.81E-01	1.58E+00	4.61E-01	2.70E+00
Toluene		5.47E-01	2.90E-01	1.78E-01	8.44E-01		1.32E-01	2.37E-01	6.93E-02	4.05E-01
Xylenes (isomers and mixture)		4.70E-01	2.49E-01	1.53E-01	7.26E-01		1.14E-01	2.04E-01	5.96E-02	3.49E-01
Dinitrotoluene		3.71E-02	2.05E-02	1.26E-02	5.05E-02	1.42E-06	1.07E-02	1.77E-02	7.26E-03	2.66E-02
Dibutylphthalate		1.36E-01	7.27E-02	4.46E-02	2.06E-01	5.75E-08	3.40E-02	6.01E-02	1.88E-02	1.00E-01
Antimony		1.26E-01	6.67E-02	4.09E-02	1.94E-01		3.05E-02	5.46E-02	1.59E-02	9.33E-02
Total Chromium		1.04E+00	5.54E-01	3.40E-01	1.62E+00	5.70E-04	2.53E-01	4.54E-01	1.33E-01	7.75E-01
Lead		9.65E+00	5.12E+00	3.14E+00	1.49E+01	5.91E-03	2.35E+00	4.19E+00	1.23E+00	7.15E+00
Nickel		1.99E-02	1.06E-02	6.47E-03	3.07E-02		4.82E-03	8.64E-03	2.52E-03	1.48E-02
Manganese		4.03E+01	2.14E+01	1.31E+01	6.23E+01		9.77E+00	1.75E+01	5.11E+00	2.99E+01
Arsenic		3.38E-03	1.92E-03	1.61E-03	3.53E-02	1.93E-03	1.17E-03	2.01E-03	9.24E-04	2.67E-03
Cadmium		2.31E-02	1.31E-02	1.10E-02	2.41E-01	1.32E-02	7.97E-03	1.37E-02	6.32E-03	1.83E-02
Mercury		9.54E-07	5.41E-07	4.54E-07	9.95E-06	5.45E-07	3.29E-07	5.67E-07	2.61E-07	7.54E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide	1.00E+04	5.32E+01	2.83E+01	1.73E+01	8.23E+01	1.44E-01	1.30E+01	2.32E+01	6.87E+00	3.94E+01
Nitrogen dioxide		2.81E+00	1.62E+00	1.01E+00	4.60E+00	2.76E-01	9.39E-01	1.41E+00	6.05E-01	2.02E+00
Particulates (PM-10)		4.45E+02	2.38E+02	1.44E+02	9.95E+02	1.51E+01	1.11E+02	1.96E+02	5.99E+01	3.29E+02
Sulfur dioxide		6.75E-01	4.37E-01	2.78E-01	1.20E+00	1.72E-01	3.24E-01	4.11E-01	2.40E-01	4.60E-01
Lead **		2.82E+00	1.50E+00	9.17E-01	4.38E+00	2.95E-03	6.90E-01	1.23E+00	3.61E-01	2.09E+00
Indiana HAPs										
1,3-Butadiene	1.10E+04	1.48E-02	7.85E-03	4.81E-03	2.29E-02		3.58E-03	6.42E-03	1.88E-03	1.10E-02
1,4-Dichlorobenzene	2.25E+03	2.86E-04	1.52E-04	9.31E-05	4.42E-04		6.93E-05	1.24E-04	3.63E-05	2.12E-04
Benzene	1.60E+01	2.51E-01	1.34E-01	8.25E-02	3.90E-01	2.27E-03	6.29E-02	1.11E-01	3.39E-02	1.86E-01
Dimethyl phthalate	2.50E+01	3.50E-04	1.85E-04	1.14E-04	5.40E-04		8.47E-05	1.52E-04	4.43E-05	2.59E-04
Ethyl benzene	2.18E+03	2.44E-02	1.30E-02	7.94E-03	3.77E-02		5.91E-03	1.06E-02	3.09E-03	1.81E-02
Hexane	9.00E+03	1.91E-02	1.01E-02	6.22E-03	2.95E-02		4.63E-03	8.30E-03	2.42E-03	1.42E-02
Hydrogen cyanide	2.50E+01	3.58E+00	1.90E+00	1.16E+00	5.53E+00	4.68E-03	8.70E-01	1.56E+00	4.57E-01	2.65E+00
Naphthalene	2.50E+02	7.72E-03	4.20E-03	2.59E-03	1.21E-02	2.26E-04	2.08E-03	3.51E-03	1.18E-03	5.68E-03
Phenol	1.00E+02	6.66E-03	4.01E-03	2.53E-03	1.13E-02	1.05E-03	2.59E-03	3.61E-03	1.79E-03	4.69E-03
Styrene	2.10E+03	1.06E+00	5.62E-01	3.45E-01	1.64E+00		2.57E-01	4.60E-01	1.34E-01	7.86E-01
Toluene	3.75E+03	1.59E-01	8.46E-02	5.19E-02	2.46E-01		3.86E-02	6.92E-02	2.02E-02	1.18E-01
Xylenes (isomers and mixture)	2.18E+03	1.37E-01	7.27E-02	4.46E-02	2.12E-01		3.32E-02	5.95E-02	1.74E-02	1.02E-01
Dinitrotoluene	7.50E+00	1.15E-02	6.43E-03	3.95E-03	1.47E-02	6.10E-07	3.54E-03	5.67E-03	2.58E-03	8.10E-03
Dibutylphthalate	2.50E+01	4.01E-02	2.15E-02	1.32E-02	6.02E-02	3.35E-08	1.02E-02	1.78E-02	5.76E-03	2.95E-02
Antimony	2.50E+00	3.67E-02	1.95E-02	1.19E-02	5.67E-02		8.89E-03	1.59E-02	4.65E-03	2.72E-02
Total Chromium	2.50E+00	3.05E-01	1.62E-01	9.92E-02	4.77E-01	2.38E-04	7.39E-02	1.32E-01	3.87E-02	2.26E-01
Lead	2.50E-01	**2.82E+00**	**1.50E+00**	**9.17E-01**	**4.38E+00**	2.95E-03	**6.90E-01**	**1.23E+00**	**3.61E-01**	**2.09E+00**
Nickel	5.00E+00	5.80E-03	3.08E-03	1.89E-03	8.96E-03		1.41E-03	2.52E-03	7.35E-04	4.30E-03
Manganese	2.50E+01	1.18E+01	6.24E+00	3.83E+00	1.82E+01		2.85E+00	5.11E+00	1.49E+00	8.73E+00
Arsenic	2.50E+00	1.77E-03	9.61E-04	4.38E-04	2.44E-02	8.09E-04	4.25E-04	7.83E-04	2.36E-04	1.33E-03
Cadmium	2.50E-02	1.14E-02	6.21E-03	2.83E-03	**1.57E-01**	5.23E-03	2.74E-03	5.06E-03	1.53E-03	8.62E-03
Mercury	5.00E-01	5.00E-07	2.71E-07	1.24E-07	6.87E-06	2.28E-07	1.20E-07	2.21E-07	6.66E-08	3.76E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.01E+01	5.40E+00	3.31E+00	1.57E+01	2.74E-02	2.49E+00	4.43E+00	1.32E+00	7.51E+00
Nitrogen dioxide		5.64E-01	3.29E-01	2.05E-01	8.76E-01	5.26E-02	1.97E-01	2.91E-01	1.36E-01	4.00E-01
Particulates (PM-10)	1.50E+02	9.43E+01	4.87E+01	3.06E+01	**3.37E+02**	8.24E+00	2.38E+01	4.35E+01	1.30E+01	6.85E+01
Sulfur dioxide	3.65E+02	1.46E-01	9.59E-02	6.08E-02	2.29E-01	3.28E-02	7.29E-02	9.24E-02	5.84E-02	9.71E-02
Lead **		5.38E-01	2.85E-01	1.75E-01	8.51E-01	1.16E-03	1.32E-01	2.34E-01	6.88E-02	3.99E-01
Indiana HAPs										
1,3-Butadiene		2.82E-03	1.49E-03	9.17E-04	4.35E-03		6.83E-04	1.22E-03	3.57E-04	2.09E-03
1,4-Dichlorobenzene		5.45E-05	2.89E-05	1.77E-05	8.42E-05		1.32E-05	2.37E-05	6.91E-06	4.04E-05
Benzene		4.81E-02	2.57E-02	1.58E-02	7.43E-02	4.32E-04	1.21E-02	2.13E-02	6.62E-03	3.55E-02
Dimethyl phthalate		6.66E-05	3.53E-05	2.17E-05	1.03E-04		1.61E-05	2.89E-05	8.44E-06	4.94E-05
Ethyl benzene		4.65E-03	2.47E-03	1.51E-03	7.18E-03		1.13E-03	2.02E-03	5.90E-04	3.45E-03
Hexane		3.64E-03	1.93E-03	1.18E-03	5.62E-03		8.82E-04	1.58E-03	4.61E-04	2.70E-03
Hydrogen cyanide		6.81E-01	3.62E-01	2.22E-01	1.05E+00	8.92E-04	1.66E-01	2.97E-01	8.75E-02	5.05E-01
Naphthalene		1.49E-03	8.17E-04	5.04E-04	2.31E-03	4.30E-05	4.11E-04	6.87E-04	2.42E-04	1.09E-03
Phenol		1.38E-03	8.42E-04	5.29E-04	2.14E-03	1.99E-04	5.62E-04	7.74E-04	4.17E-04	9.52E-04
Styrene		2.02E-01	1.07E-01	6.57E-02	3.12E-01		4.89E-02	8.77E-02	2.56E-02	1.50E-01
Toluene		3.04E-02	1.61E-02	9.88E-03	4.69E-02		7.36E-03	1.32E-02	3.85E-03	2.25E-02
Xylenes (isomers and mixture)		2.61E-02	1.39E-02	8.50E-03	4.03E-02		6.33E-03	1.13E-02	3.31E-03	1.94E-02
Dinitrotoluene		2.42E-03	1.40E-03	8.58E-04	2.82E-03	3.77E-07	8.27E-04	1.27E-03	6.63E-04	1.67E-03
Dibutylphthalate		7.78E-03	4.20E-03	2.57E-03	1.15E-02	6.39E-09	2.03E-03	3.51E-03	1.20E-03	5.70E-03
Antimony		6.99E-03	3.71E-03	2.27E-03	1.08E-02		1.69E-03	3.04E-03	8.86E-04	5.19E-03
Total Chromium		5.83E-02	3.09E-02	1.90E-02	9.40E-02	1.57E-04	1.41E-02	2.54E-02	7.39E-03	4.32E-02
Lead		5.38E-01	2.85E-01	1.75E-01	8.51E-01	1.16E-03	1.32E-01	2.34E-01	6.88E-02	3.99E-01
Nickel		1.11E-03	5.86E-04	3.60E-04	1.71E-03		2.68E-04	4.80E-04	1.40E-04	8.20E-04
Manganese		2.24E+00	1.19E+00	7.29E-01	3.46E+00		5.43E-01	9.73E-01	2.84E-01	1.66E+00
Arsenic		9.90E-04	4.02E-04	2.99E-04	1.51E-02	5.34E-04	2.48E-04	5.67E-04	1.36E-04	6.55E-04
Cadmium		6.40E-03	2.60E-03	1.93E-03	9.74E-02	3.45E-03	1.60E-03	3.66E-03	8.80E-04	4.23E-03
Mercury		2.79E-07	1.13E-07	8.44E-08	4.25E-06	1.51E-07	7.00E-08	1.60E-07	3.84E-08	1.85E-07

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		1.68E+00	8.94E-01	5.48E-01	2.57E+00	1.81E-03	4.16E-01	7.35E-01	2.22E-01	1.24E+00
Nitrogen dioxide		8.90E-02	5.35E-02	3.26E-02	1.02E-01	3.43E-03	3.95E-02	5.03E-02	2.86E-02	6.01E-02
Particulates (PM-10)		1.09E+01	5.85E+00	3.56E+00	1.79E+01	1.11E-01	2.89E+00	4.89E+00	1.62E+00	7.92E+00
Sulfur dioxide		2.02E-02	1.29E-02	7.81E-03	1.94E-02	1.16E-03	1.09E-02	1.27E-02	8.38E-03	1.30E-02
Lead **	1.50E+00	1.22E-01	6.56E-02	4.00E-02	1.85E-01	1.12E-03	3.43E-02	5.46E-02	1.77E-02	8.94E-02
Indiana HAPs										
1,3-Butadiene		2.81E-04	1.49E-04	9.14E-05	4.34E-04		6.80E-05	1.22E-04	3.56E-05	2.08E-04
1,4-Dichlorobenzene		1.11E-05	5.90E-06	3.62E-06	1.72E-05		2.70E-06	4.83E-06	1.41E-06	8.25E-06
Benzene		5.80E-03	3.13E-03	1.92E-03	8.70E-03	2.57E-05	1.54E-03	2.61E-03	8.65E-04	4.26E-03
Dimethyl phthalate		1.03E-05	5.44E-06	3.34E-06	1.58E-05		2.48E-06	4.45E-06	1.30E-06	7.61E-06
Ethyl benzene		4.40E-04	2.33E-04	1.43E-04	6.79E-04		1.06E-04	1.91E-04	5.57E-05	3.26E-04
Hexane		3.44E-04	1.83E-04	1.12E-04	5.32E-04		8.34E-05	1.49E-04	4.36E-05	2.55E-04
Hydrogen cyanide		9.79E-02	5.21E-02	3.20E-02	1.50E-01	9.17E-05	2.42E-02	4.28E-02	1.29E-02	7.25E-02
Naphthalene		1.50E-04	8.41E-05	5.14E-05	2.09E-04	2.33E-06	4.86E-05	7.33E-05	3.08E-05	1.08E-04
Phenol		1.76E-04	1.13E-04	6.86E-05	1.63E-04	1.06E-05	9.81E-05	1.13E-04	7.58E-05	1.12E-04
Styrene		1.83E-02	9.72E-03	5.96E-03	2.83E-02		4.44E-03	7.95E-03	2.32E-03	1.36E-02
Toluene		2.86E-03	1.51E-03	9.29E-04	4.41E-03		6.92E-04	1.24E-03	3.62E-04	2.12E-03
Xylenes (isomers and mixture)		2.32E-03	1.23E-03	7.55E-04	3.59E-03		5.62E-04	1.01E-03	2.94E-04	1.72E-03
Dinitrotoluene		6.88E-04	4.18E-04	2.57E-04	6.16E-04	3.66E-07	2.81E-04	4.04E-04	2.57E-04	4.51E-04
Dibutylphthalate		1.80E-03	9.86E-04	6.06E-04	2.51E-03	4.52E-08	5.04E-04	8.44E-04	3.30E-04	1.30E-03
Antimony		1.55E-03	8.29E-04	5.07E-04	2.38E-03	5.35E-06	3.99E-04	6.83E-04	2.08E-04	1.15E-03
Total Chromium		1.27E-02	6.75E-03	4.14E-03	1.97E-02	4.41E-06	3.10E-03	5.53E-03	1.62E-03	9.44E-03
Lead		1.22E-01	6.56E-02	4.00E-02	1.85E-01	1.12E-03	3.43E-02	5.46E-02	1.77E-02	8.94E-02
Nickel		4.38E-04	2.82E-04	1.63E-04	5.45E-04	5.12E-05	3.28E-04	2.76E-04	1.60E-04	2.89E-04
Manganese		4.91E-01	2.61E-01	1.60E-01	7.59E-01		1.19E-01	2.13E-01	6.23E-02	3.64E-01
Arsenic		1.05E-05	5.00E-06	1.51E-06	1.32E-04	4.41E-06	2.50E-06	4.40E-06	1.21E-06	3.72E-06
Cadmium		6.79E-05	3.23E-05	9.73E-06	8.56E-04	2.85E-05	1.61E-05	2.84E-05	7.79E-06	2.40E-05
Mercury		2.97E-09	1.41E-09	4.25E-10	3.74E-08	1.25E-09	7.05E-10	1.24E-09	3.40E-10	1.05E-09

		Receptor								
Contaminant	Standard	Cafeteria	N. Bald Eagle	S. Bald Eagle	DG Retreat	ABG Retreat	Padanaram	Indian Springs	Silverville	Burns City
NAAQS										
Carbon monoxide		4.20E-01	2.24E-01	1.37E-01	6.44E-01	4.52E-04	1.04E-01	1.84E-01	5.55E-02	3.11E-01
Nitrogen dioxide	1.00E+02	2.22E-02	1.34E-02	8.15E-03	2.55E-02	8.58E-04	9.86E-03	1.26E-02	7.14E-03	1.50E-02
Particulates (PM-10)	5.00E+01	3.27E+00	1.73E+00	9.70E-01	1.15E+01	2.61E-01	8.54E-01	1.45E+00	4.69E-01	2.18E+00
Sulfur dioxide	8.00E+01	5.06E-03	3.21E-03	1.95E-03	4.85E-03	2.89E-04	2.73E-03	3.18E-03	2.09E-03	3.25E-03
Lead **		3.04E-02	1.64E-02	1.00E-02	4.70E-02	3.07E-04	8.59E-03	1.37E-02	4.43E-03	2.24E-02
Indiana HAPs										
1,3-Butadiene		7.02E-05	3.72E-05	2.28E-05	1.08E-04		1.70E-05	3.05E-05	8.90E-06	5.21E-05
1,4-Dichlorobenzene		2.78E-06	1.48E-06	9.05E-07	4.30E-06		6.74E-07	1.21E-06	3.53E-07	2.06E-06
Benzene		1.45E-03	7.82E-04	4.79E-04	2.18E-03	6.42E-06	3.85E-04	6.52E-04	2.16E-04	1.07E-03
Dimethyl phthalate		2.56E-06	1.36E-06	8.34E-07	3.96E-06		6.21E-07	1.11E-06	3.25E-07	1.90E-06
Ethyl benzene		1.10E-04	5.83E-05	3.58E-05	1.70E-04		2.66E-05	4.77E-05	1.39E-05	8.15E-05
Hexane		8.61E-05	4.57E-05	2.80E-05	1.33E-04		2.08E-05	3.74E-05	1.09E-05	6.38E-05
Hydrogen cyanide		2.45E-02	1.30E-02	7.99E-03	3.76E-02	2.29E-05	6.05E-03	1.07E-02	3.22E-03	1.81E-02
Naphthalene		3.76E-05	2.10E-05	1.29E-05	5.21E-05	5.82E-07	1.21E-05	1.83E-05	7.70E-06	2.69E-05
Phenol		4.41E-05	2.83E-05	1.72E-05	4.08E-05	2.66E-06	2.45E-05	2.82E-05	1.90E-05	2.81E-05
Styrene		4.58E-03	2.43E-03	1.49E-03	7.07E-03		1.11E-03	1.99E-03	5.80E-04	3.40E-03
Toluene		7.14E-04	3.79E-04	2.32E-04	1.10E-03		1.73E-04	3.10E-04	9.05E-05	5.29E-04
Xylenes (isomers and mixture)		5.80E-04	3.08E-04	1.89E-04	8.96E-04		1.41E-04	2.52E-04	7.36E-05	4.31E-04
Dinitrotoluene		1.72E-04	1.05E-04	6.44E-05	1.54E-04	1.03E-07	7.04E-05	1.01E-04	6.43E-05	1.13E-04
Dibutylphthalate		4.50E-04	2.47E-04	1.51E-04	6.28E-04	1.13E-08	1.26E-04	2.11E-04	8.24E-05	3.25E-04
Antimony		3.88E-04	2.07E-04	1.27E-04	5.96E-04	1.34E-06	9.98E-05	1.71E-04	5.19E-05	2.87E-04
Total Chromium		3.19E-03	1.69E-03	1.04E-03	5.07E-03	5.98E-06	7.77E-04	1.39E-03	4.06E-04	2.36E-03
Lead		3.04E-02	1.64E-02	1.00E-02	4.70E-02	3.07E-04	8.59E-03	1.37E-02	4.43E-03	2.24E-02
Nickel		1.09E-04	7.05E-05	4.07E-05	1.36E-04	1.28E-05	8.21E-05	6.89E-05	3.99E-05	7.23E-05
Manganese		1.23E-01	6.51E-02	3.99E-02	1.90E-01		2.97E-02	5.33E-02	1.56E-02	9.11E-02
Arsenic		4.20E-05	2.00E-05	6.03E-06	5.30E-04	1.77E-05	1.00E-05	1.76E-05	4.82E-06	1.49E-05
Cadmium		2.72E-04	1.29E-04	3.89E-05	3.42E-03	1.14E-04	6.46E-05	1.14E-04	3.11E-05	9.62E-05
Mercury		1.19E-08	5.64E-09	1.70E-09	1.50E-07	4.98E-09	2.82E-09	4.96E-09	1.36E-09	4.20E-09

APPENDIX D-11

AIR DISPERSION MODELING ASSESSMENT
ELECTRONIC DATA FILES
COMPACT DISC

C0MPACT DISC DIRECTORY

```
Directory of E:\

FDM             <DIR>        08-19-97  1:30p FDM
ISCST           <DIR>        08-19-97  1:31p ISCST
INPUFF          <DIR>        08-19-97  1:30p INPUFF
SPREAD~1        <DIR>        08-19-97  1:31p Spreadsheets
         0 file(s)               0 bytes

Directory of E:\FDM

.               <DIR>        08-19-97  1:30p .
..              <DIR>        08-19-97  1:30p ..
METFIL~1        <DIR>        08-19-97  1:57p Met Files
10UM~1          <DIR>        08-19-97  1:50p 10 um
23UM~1          <DIR>        08-19-97  1:50p 23 um
RECEPTOR XLS        55,296  06-27-97 10:12a RECEPTOR.XLS
         1 file(s)         55,296 bytes

Directory of E:\FDM\10 um

.               <DIR>        08-19-97  1:50p .
..              <DIR>        08-19-97  1:50p ..
INPUTF~1        <DIR>        08-19-97  1:50p Input Files
OUTPUT~1        <DIR>        08-19-97  1:51p Output Files
SPREAD~1        <DIR>        08-19-97  1:51p Spreadsheets
         0 file(s)               0 bytes

Directory of E:\FDM\10 um\Input Files

.               <DIR>        08-19-97  1:50p .
..              <DIR>        08-19-97  1:50p ..
CRANE2   IN          5,719  08-11-97  9:47a CRANE2.IN
         1 file(s)           5,719 bytes

Directory of E:\FDM\10 um\Output Files

.               <DIR>        08-19-97  1:51p .
..              <DIR>        08-19-97  1:51p ..
CRANE87  OUT       148,364  08-11-97  9:47a CRANE87.OUT
CRANE88  OUT       148,364  08-11-97  9:47a CRANE88.OUT
CRANE89  OUT       148,364  07-07-97  9:16a CRANE89.OUT
CRANE90  OUT       148,364  07-07-97  9:57a CRANE90.OUT
CRANE91  OUT       148,364  07-07-97 10:27a CRANE91.OUT
         5 file(s)        741,820 bytes

Directory of E:\FDM\10 um\Spreadsheets

.               <DIR>        08-19-97  1:51p .
..              <DIR>        08-19-97  1:51p ..
CRANECON XLS     1,254,400  07-07-97  2:47p CRANECON.XLS
         1 file(s)      1,254,400 bytes

Directory of E:\FDM\23 um

.               <DIR>        08-19-97  1:50p .
..              <DIR>        08-19-97  1:50p ..
INPUTF~1        <DIR>        08-19-97  1:51p Input Files
OUTPUT~1        <DIR>        08-19-97  1:51p Output Files
SPREAD~1        <DIR>        08-19-97  1:51p Spreadsheets
         0 file(s)               0 bytes
```

```
Directory of E:\FDM\23 um\Input Files

.               <DIR>        08-19-97  1:51p .
..              <DIR>        08-19-97  1:51p ..
CRANE3   IN           5,721  08-12-97  3:41p CRANE3.IN
         1 file(s)           5,721 bytes
Directory of E:\FDM\23 um\Output Files

.               <DIR>        08-19-97  1:51p .
..              <DIR>        08-19-97  1:51p ..
CRANE873 OUT       148,364  07-11-97 10:09a CRANE873.OUT
CRANE883 OUT       148,364  07-11-97  9:29a CRANE883.OUT
CRANE893 OUT       148,364  07-11-97 10:27a CRANE893.OUT
CRANE903 OUT       148,364  07-11-97 10:54a CRANE903.OUT
CRANE913 OUT       148,364  07-11-97 11:33a CRANE913.OUT
         5 file(s)        741,820 bytes

Directory of E:\FDM\23 um\Spreadsheets

.               <DIR>        08-19-97  1:51p .
..              <DIR>        08-19-97  1:51p ..
CRANE23  XLS     1,331,200  07-15-97 12:39p CRANE23.XLS
         1 file(s)      1,331,200 bytes
Directory of E:\FDM\Met Files

.               <DIR>        08-19-97  1:57p .
..              <DIR>        08-19-97  1:57p ..
CRANE87  BIN       251,139  06-24-97  8:24a CRANE87.BIN
CRANE88  BIN       251,827  06-24-97  8:27a CRANE88.BIN
CRANE89  BIN       251,139  06-24-97  8:29a CRANE89.BIN
CRANE90  BIN       251,139  06-24-97  8:31a CRANE90.BIN
CRANE91  BIN       251,139  06-24-97  8:34a CRANE91.BIN
         5 file(s)      1,256,383 bytes

Directory of E:\INPUFF

.               <DIR>        08-19-97  1:30p .
..              <DIR>        08-19-97  1:30p ..
PUFF            <DIR>        08-19-97  1:34p Puff
PANS            <DIR>        08-19-97  1:33p Pans
FUELAS~1        <DIR>        08-19-97  1:33p Fuel Assisted
         0 file(s)                0 bytes
```

Directory of E:\INPUFF\Fuel Assisted

```
.              <DIR>        08-19-97  1:33p .
..             <DIR>        08-19-97  1:33p ..
FULG120C LST       139,837  01-23-95 10:02a FULG120C.LST
FULG110C LST       128,613  01-23-95 10:01a FULG110C.LST
FULG100C LST       131,593  01-23-95 10:00a FULG100C.LST
FULGL80C LST       128,613  01-23-95  9:58a FULGL80C.LST
FULGL90C LST       131,419  01-23-95  9:59a FULGL90C.LST
FULGL80C INP        10,286  01-23-95  9:57a FULGL80C.INP
FULG110C INP        10,287  01-23-95  9:57a FULG110C.INP
FULG120C INP        10,411  01-20-95  2:20p FULG120C.INP
FULG100C INP        10,318  01-23-95  9:57a FULG100C.INP
FULGL90C INP        10,317  01-23-95  9:57a FULGL90C.INP
FA-060   DAT        10,086  08-01-97  2:09p FA-060.DAT
FA-103   DAT        10,086  08-01-97  2:05p FA-103.DAT
FA-112   DAT        10,086  08-01-97  1:58p FA-112.DAT
FA-115   DAT        10,086  08-01-97  1:55p Fa-115.dat
FA-060   LST       111,754  08-01-97  4:19p fa-060.lst
FA-103   LST       111,754  08-01-97  4:20p fa-103.lst
FA-112   LST       111,754  08-01-97  1:58p FA-112.LST
FA-115   LST       111,754  08-01-97  1:55p FA-115.LST
        18 file(s)      1,199,054 bytes
```

Directory of E:\INPUFF\Pans

```
.              <DIR>        08-19-97  1:33p .
..             <DIR>        08-19-97  1:33p ..
PANG170C LST       128,613  01-23-95 11:08a PANG170C.LST
PANG180C LST       131,419  01-23-95 11:05a PANG180C.LST
PANG190C LST       131,419  01-23-95 11:03a PANG190C.LST
PANG200C LST       128,613  01-23-95 10:59a PANG200C.LST
PANG210C LST       139,837  01-23-95 10:54a PANG210C.LST
PANG170C INP        10,343  01-23-95 11:07a PANG170C.INP
PANG180C INP        10,314  01-23-95 11:04a PANG180C.INP
PANG190C INP        10,373  01-23-95 11:02a PANG190C.INP
PANG200C INP        10,342  01-23-95 10:59a PANG200C.INP
ABG106   DAT        10,155  07-17-97 10:41a abg106.dat
ABG194   DAT        10,155  07-17-97 10:36a abg194.dat
ABG203   DAT        10,155  07-17-97 10:27a abg203.dat
ABG106   LST       111,754  07-17-97 10:41a abg106.lst
ABG194   LST       111,754  07-17-97 10:36a abg194.lst
ABG203   LST       111,754  07-17-97 10:27a abg203.lst
        15 file(s)      1,067,000 bytes
```

Directory of E:\INPUFF\Puff

```
.              <DIR>        08-19-97  1:34p .
..             <DIR>        08-19-97  1:34p ..
PUFFGL7C INP        10,328  01-23-95 11:15a PUFFGL7C.INP
PUFFG15C INP        10,267  01-20-95  3:35p PUFFG15C.INP
PUFFG10C INP        10,173  01-23-95 11:13a PUFFG10C.INP
PUFFG10C LST       128,613  01-23-95 11:14a PUFFG10C.LST
PUFFG15C LST       137,031  01-23-95 11:10a PUFFG15C.LST
PUFFGL7C LST       142,643  01-23-95 11:15a PUFFGL7C.LST
DG38     DAT        10,138  07-17-97 11:29a dg38.dat
DG71     DAT        10,138  07-17-97 11:22a dg71.dat
DG38     LST       111,754  07-17-97 11:29a dg38.lst
DG71     LST       111,754  07-17-97 11:23a dg71.lst
        10 file(s)        682,839 bytes
```

```
Directory of E:\ISCST

.               <DIR>        08-19-97  1:31p .
..              <DIR>        08-19-97  1:31p ..
ABGMOD~1        <DIR>        08-19-97  1:36p ABG Model Runs
METFIL~1        <DIR>        08-19-97  1:37p Met Files
ORRMOD~1        <DIR>        08-19-97  1:37p ORR Model Runs
         0 file(s)               0 bytes

Directory of E:\ISCST\ABG Model Runs

.               <DIR>        08-19-97  1:36p .
..              <DIR>        08-19-97  1:36p ..
OUTPUT~1        <DIR>        08-19-97  1:36p Output Files
DATAFI~1        <DIR>        08-19-97  1:37p Data Files
RAWFIL~1        <DIR>        08-19-97  1:37p Raw Files
         0 file(s)               0 bytes

Directory of E:\ISCST\ABG Model Runs\Data Files

.               <DIR>        08-19-97  1:37p .
..              <DIR>        08-19-97  1:37p ..
ABG_13D  DAT         4,156  07-03-97  3:43p abg_13d.dat
ABG_13B  DAT         4,156  07-03-97  3:43p abg_13b.dat
ABG_13C  DAT         4,156  07-03-97  3:43p abg_13c.dat
ABG_13A  DAT         4,156  07-03-97  3:43p abg_13a.dat
ABG_25A  DAT         4,156  07-03-97  3:43p abg_25a.dat
ABG_25B  DAT         4,156  07-03-97  3:43p abg_25b.dat
ABG_25C  DAT         4,156  07-03-97  3:43p abg_25c.dat
ABG_25D  DAT         4,156  07-03-97  3:43p abg_25d.dat
ABG_35A  DAT         4,156  07-03-97  3:43p abg_35a.dat
ABG_35B  DAT         4,156  07-03-97  3:43p abg_35b.dat
ABG_35C  DAT         4,156  07-03-97  3:43p abg_35c.dat
ABG_35D  DAT         4,156  07-03-97  3:43p abg_35d.dat
ABG_45A  DAT         4,156  07-03-97  3:43p abg_45a.dat
ABG_45B  DAT         4,156  07-03-97  3:44p abg_45b.dat
ABG_45C  DAT         4,156  07-03-97  3:44p abg_45c.dat
ABG_45D  DAT         4,156  07-03-97  3:44p abg_45d.dat
ABG_55A  DAT         4,156  07-03-97  3:44p abg_55a.dat
ABG_55B  DAT         4,156  07-03-97  3:44p abg_55b.dat
ABG_55C  DAT         4,156  07-03-97  3:44p abg_55c.dat
ABG_55D  DAT         4,156  07-03-97  3:44p abg_55d.dat
ABG_67A  DAT         4,156  07-03-97  3:44p abg_67a.dat
ABG_67B  DAT         4,156  07-03-97  3:44p abg_67b.dat
ABG_67C  DAT         4,156  07-03-97  3:44p abg_67c.dat
ABG_67D  DAT         4,156  07-03-97  3:44p abg_67d.dat
ABG_ISC  DAT         3,245  07-02-97 12:58p ABG_isc.dat
        25 file(s)       102,989 bytes
```

Directory of E:\ISCST\ABG Model Runs\Output Files

```
.                <DIR>          08-19-97  1:36p .
..               <DIR>          08-19-97  1:36p ..
ABG_55D  LST          43,436  07-03-97  3:44p ABG_55D.LST
ABG_13B  LST          43,436  07-03-97  3:43p ABG_13B.LST
ABG_13C  LST          43,436  07-03-97  3:43p ABG_13C.LST
ABG_13D  LST          43,436  07-03-97  3:43p ABG_13D.LST
ABG_25A  LST          43,436  07-03-97  3:43p ABG_25A.LST
ABG_25B  LST          43,436  07-03-97  3:43p ABG_25B.LST
ABG_25C  LST          43,436  07-03-97  3:43p ABG_25C.LST
ABG_25D  LST          43,436  07-03-97  3:43p ABG_25D.LST
ABG_35A  LST          43,436  07-03-97  3:43p ABG_35A.LST
ABG_35B  LST          43,436  07-03-97  3:43p ABG_35B.LST
ABG_35C  LST          43,436  07-03-97  3:43p ABG_35C.LST
ABG_35D  LST          43,436  07-03-97  3:43p ABG_35D.LST
ABG_45A  LST          43,436  07-03-97  3:44p ABG_45A.LST
ABG_45B  LST          43,436  07-03-97  3:44p ABG_45B.LST
ABG_45C  LST          43,436  07-03-97  3:44p ABG_45C.LST
ABG_45D  LST          43,436  07-03-97  3:44p ABG_45D.LST
ABG_55A  LST          43,436  07-03-97  3:44p ABG_55A.LST
ABG_55B  LST          43,436  07-03-97  3:44p ABG_55B.LST
ABG_55C  LST          43,436  07-03-97  3:44p ABG_55C.LST
ABG_13A  LST          43,436  07-03-97  3:43p ABG_13A.LST
ABG_67A  LST          43,436  07-03-97  3:44p ABG_67A.LST
ABG_67B  LST          43,436  07-03-97  3:44p ABG_67B.LST
ABG_67C  LST          43,436  07-03-97  3:44p ABG_67C.LST
ABG_67D  LST          43,436  07-03-97  3:44p ABG_67D.LST
ABG_ISC  LST          43,571  07-02-97 12:58p ABG_ISC.LST
        25 file(s)       1,086,035 bytes
```

Directory of E:\ISCST\ABG Model Runs\Raw Files

```
.                <DIR>          08-19-97  1:37p .
..               <DIR>          08-19-97  1:37p ..
ABG_67C  RAW           1,270  07-03-97  3:44p ABG_67C.RAW
ABG_13B  RAW           1,270  07-03-97  3:43p ABG_13B.RAW
ABG_13C  RAW           1,270  07-03-97  3:43p ABG_13C.RAW
ABG_13D  RAW           1,270  07-03-97  3:43p ABG_13D.RAW
ABG_25A  RAW           1,270  07-03-97  3:43p ABG_25A.RAW
ABG_25B  RAW           1,270  07-03-97  3:43p ABG_25B.RAW
ABG_25C  RAW           1,270  07-03-97  3:43p ABG_25C.RAW
ABG_25D  RAW           1,270  07-03-97  3:43p ABG_25D.RAW
ABG_35A  RAW           1,270  07-03-97  3:43p ABG_35A.RAW
ABG_35B  RAW           1,270  07-03-97  3:43p ABG_35B.RAW
ABG_35C  RAW           1,270  07-03-97  3:43p ABG_35C.RAW
ABG_35D  RAW           1,270  07-03-97  3:43p ABG_35D.RAW
ABG_45A  RAW           1,270  07-03-97  3:44p ABG_45A.RAW
ABG_45B  RAW           1,270  07-03-97  3:44p ABG_45B.RAW
ABG_45C  RAW           1,270  07-03-97  3:44p ABG_45C.RAW
ABG_45D  RAW           1,270  07-03-97  3:44p ABG_45D.RAW
ABG_55A  RAW           1,270  07-03-97  3:44p ABG_55A.RAW
ABG_55B  RAW           1,270  07-03-97  3:44p ABG_55B.RAW
ABG_55C  RAW           1,270  07-03-97  3:44p ABG_55C.RAW
ABG_55D  RAW           1,270  07-03-97  3:44p ABG_55D.RAW
ABG_67A  RAW           1,270  07-03-97  3:44p ABG_67A.RAW
ABG_67B  RAW           1,270  07-03-97  3:44p ABG_67B.RAW
ABG_13A  RAW           1,270  07-03-97  3:43p ABG_13A.RAW
ABG_67D  RAW           1,270  07-03-97  3:44p ABG_67D.RAW
ABG_ISC  RAW           1,270  07-02-97 12:58p ABG_ISC.RAW
        25 file(s)          31,750 bytes
```

Directory of E:\ISCST\Met Files

```
.                <DIR>          08-19-97  1:37p .
..               <DIR>          08-19-97  1:37p ..
13B      ASC           1,212  07-03-97 10:25a 13b.asc
13A      ASC           1,212  07-03-97 10:22a 13a.asc
13C      ASC           1,212  07-03-97 10:24a 13c.asc
13D      ASC           1,212  07-03-97 10:24a 13d.asc
25A      ASC           1,212  07-03-97 10:25a 25a.asc
25B      ASC           1,212  07-03-97 10:26a 25b.asc
25C      ASC           1,212  07-03-97 10:26a 25c.asc
25D      ASC           1,212  07-03-97 10:27a 25d.asc
35A      ASC           1,212  07-03-97 10:30a 35a.asc
35B      ASC           1,212  07-03-97 10:29a 35b.asc
35C      ASC           1,212  07-03-97 10:28a 35c.asc
35D      ASC           1,212  07-03-97 10:27a 35d.asc
45A      ASC           1,212  07-03-97 10:31a 45a.asc
45B      ASC           1,212  07-03-97 10:32a 45b.asc
45C      ASC           1,212  07-03-97 10:32a 45c.asc
45D      ASC           1,212  07-03-97 10:32a 45d.asc
55A      ASC           1,212  07-03-97 10:35a 55a.asc
55B      ASC           1,212  07-03-97 10:34a 55b.asc
55C      ASC           1,212  07-03-97 10:34a 55c.asc
55D      ASC           1,212  07-03-97 10:33a 55d.asc
67A      ASC           1,212  07-03-97 10:36a 67a.asc
67B      ASC           1,212  07-03-97 10:36a 67b.asc
67C      ASC           1,212  07-03-97 10:37a 67c.asc
67D      ASC           1,212  07-03-97 10:37a 67d.asc
SCREEN   ASC           1,212  07-03-97 10:22a Screen.asc
        25 file(s)          30,300 bytes
```

Directory of E:\ISCST\ORR Model Runs

```
.                <DIR>          08-19-97  1:37p .
..               <DIR>          08-19-97  1:37p ..
ORR_ISC  ERR             532  07-03-97  3:46p ORR_ISC.ERR
OUTPUT~1         <DIR>          08-19-97  1:37p Output Files
DATAFI~1         <DIR>          08-19-97  1:37p Data Files
RAWFIL~1         <DIR>          08-19-97  1:38p Raw Files
         1 file(s)              532 bytes
```

Directory of E:\ISCST\ORR Model Runs\Data Files

```
.                <DIR>          08-19-97  1:37p .
..               <DIR>          08-19-97  1:37p ..
ORR_67A  DAT           4,135  07-03-97  3:46p orr_67a.dat
ORR_13C  DAT           4,135  07-03-97  3:45p orr_13c.dat
ORR_13D  DAT           4,135  07-03-97  3:45p orr_13d.dat
ORR_25A  DAT           4,135  07-03-97  3:45p orr_25a.dat
ORR_25B  DAT           4,135  07-03-97  3:45p orr_25b.dat
ORR_25C  DAT           4,135  07-03-97  3:45p orr_25c.dat
ORR_25D  DAT           4,135  07-03-97  3:45p orr_25d.dat
ORR_35A  DAT           4,135  07-03-97  3:45p orr_35a.dat
ORR_35B  DAT           4,135  07-03-97  3:45p orr_35b.dat
ORR_35C  DAT           4,135  07-03-97  3:45p orr_35c.dat
ORR_35D  DAT           4,135  07-03-97  3:45p orr_35d.dat
ORR_45A  DAT           4,135  07-03-97  3:45p orr_45a.dat
ORR_45B  DAT           4,135  07-03-97  3:45p orr_45b.dat
ORR_45C  DAT           4,135  07-03-97  3:45p orr_45c.dat
ORR_45D  DAT           4,135  07-03-97  3:46p orr_45d.dat
ORR_55A  DAT           4,135  07-03-97  3:46p orr_55a.dat
ORR_55B  DAT           4,135  07-03-97  3:46p orr_55b.dat
ORR_55C  DAT           4,135  07-03-97  3:46p orr_55c.dat
ORR_55D  DAT           4,135  07-03-97  3:46p orr_55d.dat
ORR_13B  DAT           4,135  07-03-97  3:44p orr_13b.dat
ORR_67B  DAT           4,135  07-03-97  3:46p orr_67b.dat
ORR_67C  DAT           4,135  07-03-97  3:46p orr_67c.dat
ORR_67D  DAT           4,135  07-03-97  3:46p orr_67d.dat
ORR_ISC  DAT           3,176  07-02-97 12:57p ORR_ISC.DAT
ORR_13A  DAT           4,135  07-03-97  3:44p orr_13a.dat
        25 file(s)        102,416 bytes
```

Directory of E:\ISCST\ORR Model Runs\Output Files

```
.                <DIR>          08-19-97  1:37p .
..               <DIR>          08-19-97  1:37p ..
ORR_55C  LST          43,360  07-03-97  3:46p ORR_55C.LST
ORR_13B  LST          43,360  07-03-97  3:45p ORR_13B.LST
ORR_13C  LST          43,360  07-03-97  3:45p ORR_13C.LST
ORR_13D  LST          43,360  07-03-97  3:45p ORR_13D.LST
ORR_25A  LST          43,360  07-03-97  3:45p ORR_25A.LST
ORR_25B  LST          43,360  07-03-97  3:45p ORR_25B.LST
ORR_25C  LST          43,360  07-03-97  3:45p ORR_25C.LST
ORR_25D  LST          43,360  07-03-97  3:45p ORR_25D.LST
ORR_35A  LST          43,360  07-03-97  3:45p ORR_35A.LST
ORR_35B  LST          43,360  07-03-97  3:45p ORR_35B.LST
ORR_35C  LST          43,360  07-03-97  3:45p ORR_35C.LST
ORR_35D  LST          43,360  07-03-97  3:45p ORR_35D.LST
ORR_45A  LST          43,360  07-03-97  3:45p ORR_45A.LST
ORR_45B  LST          43,360  07-03-97  3:45p ORR_45B.LST
ORR_45C  LST          43,360  07-03-97  3:45p ORR_45C.LST
ORR_45D  LST          43,360  07-03-97  3:46p ORR_45D.LST
ORR_55A  LST          43,360  07-03-97  3:46p ORR_55A.LST
ORR_55B  LST          43,360  07-03-97  3:46p ORR_55B.LST
ORR_13A  LST          43,360  07-03-97  3:44p ORR_13A.LST
ORR_55D  LST          43,360  07-03-97  3:46p ORR_55D.LST
ORR_67A  LST          43,360  07-03-97  3:46p ORR_67A.LST
ORR_67B  LST          43,360  07-03-97  3:46p ORR_67B.LST
ORR_67C  LST          43,360  07-03-97  3:46p ORR_67C.LST
ORR_67D  LST          43,360  07-03-97  3:46p ORR_67D.LST
ORR_ISC  LST          43,360  07-02-97 12:56p ORR_ISC.LST
        25 file(s)      1,084,000 bytes
```

Directory of E:\ISCST\ORR Model Runs\Raw Files

.		<DIR>	08-19-97	1:38p	.
..		<DIR>	08-19-97	1:38p	..
ORR_45B	RAW	1,270	07-03-97	3:45p	ORR_45B.RAW
ORR_13B	RAW	1,270	07-03-97	3:45p	ORR_13B.RAW
ORR_13C	RAW	1,270	07-03-97	3:45p	ORR_13C.RAW
ORR_13D	RAW	1,270	07-03-97	3:45p	ORR_13D.RAW
ORR_25A	RAW	1,270	07-03-97	3:45p	ORR_25A.RAW
ORR_25B	RAW	1,270	07-03-97	3:45p	ORR_25B.RAW
ORR_25C	RAW	1,270	07-03-97	3:45p	ORR_25C.RAW
ORR_25D	RAW	1,270	07-03-97	3:45p	ORR_25D.RAW
ORR_35A	RAW	1,270	07-03-97	3:45p	ORR_35A.RAW
ORR_35B	RAW	1,270	07-03-97	3:45p	ORR_35B.RAW
ORR_35C	RAW	1,270	07-03-97	3:45p	ORR_35C.RAW
ORR_35D	RAW	1,270	07-03-97	3:45p	ORR_35D.RAW
ORR_45A	RAW	1,270	07-03-97	3:45p	ORR_45A.RAW
ORR_13A	RAW	1,270	07-03-97	3:44p	ORR_13A.RAW
ORR_45C	RAW	1,270	07-03-97	3:45p	ORR_45C.RAW
ORR_45D	RAW	1,270	07-03-97	3:46p	ORR_45D.RAW
ORR_55A	RAW	1,270	07-03-97	3:46p	ORR_55A.RAW
ORR_55B	RAW	1,270	07-03-97	3:46p	ORR_55B.RAW
ORR_55C	RAW	1,270	07-03-97	3:46p	ORR_55C.RAW
ORR_55D	RAW	1,270	07-03-97	3:46p	ORR_55D.RAW
ORR_67A	RAW	1,270	07-03-97	3:46p	ORR_67A.RAW
ORR_67B	RAW	1,270	07-03-97	3:46p	ORR_67B.RAW
ORR_67C	RAW	1,270	07-03-97	3:46p	ORR_67C.RAW
ORR_67D	RAW	1,270	07-03-97	3:46p	ORR_67D.RAW
ORR_ISC	RAW	1,270	07-02-97	12:56p	ORR_ISC.RAW

25 file(s) 31,750 bytes

Directory of E:\Spreadsheets

.		<DIR>	08-19-97	1:31p	.
..		<DIR>	08-19-97	1:31p	..
10-ABG~1	XLS	1,088,512	08-13-97	10:11a	10-ABG Boundary.xls
10-ABG~2	XLS	623,616	08-13-97	4:31p	10-ABG Discrete.xls
11-ABG~1	XLS	1,089,024	08-13-97	10:10a	11-ABG Boundary.xls
11-ABG~2	XLS	623,616	08-13-97	4:28p	11-ABG Discrete.xls
12-ABG~1	XLS	1,089,024	08-13-97	10:09a	12-ABG Boundary.xls
12-ABG~2	XLS	623,616	08-14-97	10:07a	12-ABG Discrete.xls
13-ABG~1	XLS	1,089,024	08-13-97	10:08a	13-ABG Boundary.xls
13-ABG~2	XLS	623,616	08-13-97	4:23p	13-ABG Discrete.xls
17THBO~1	XLS	600,064	08-07-97	5:43p	17th Boundary.xls
1-SHOR~1	XLS	886,784	08-11-97	3:52p	1-Short Term Scenario Boundary.xls
1-SHOR~2	XLS	1,469,440	08-11-97	5:30p	1-Short Term Scenario Discrete.xls
2-SHOR~1	XLS	886,784	08-11-97	3:44p	2-Short Term Scenario Boundary.xls
2-SHOR~2	XLS	1,469,440	08-11-97	5:28p	2-Short Term Scenario Discrete.xls
3A-ABG~1	XLS	386,560	08-13-97	10:07a	3a-ABG Boundary.xls
3A-ABG~2	XLS	623,616	08-13-97	10:51a	3a-ABG Discrete.xls
3A-ORR~1	XLS	1,089,024	08-13-97	10:06a	3a-ORR Boundary.xls
3A-ORR~2	XLS	623,616	08-13-97	4:10p	3a-ORR Discrete.xls
3B-ABG~1	XLS	386,560	08-13-97	10:05a	3b-ABG Boundary.xls
3B-ABG~2	XLS	623,616	08-13-97	4:18p	3b-ABG Discrete.xls
3B-ORR~1	XLS	1,089,536	08-13-97	10:04a	3b-ORR Boundary.xls
3B-ORR~2	XLS	623,616	08-13-97	4:06p	3b-ORR Discrete.xls
3C-ABG~1	XLS	386,560	08-13-97	9:39a	3c-ABG Boundary.xls
3C-ABG~2	XLS	623,616	08-13-97	4:04p	3c-ABG Discrete.xls
3-DGBO~1	XLS	388,608	08-13-97	9:38a	3-DG Boundary.xls
3-DGDI~1	XLS	624,128	08-13-97	4:01p	3-DG Discrete.xls
3-SHOR~1	XLS	882,688	08-11-97	3:35p	3-Short Term Scenario Boundary.xls
3-SHOR~2	XLS	1,469,440	08-11-97	5:02p	3-Short Term Scenario Discrete.xls
4-SHOR~1	XLS	852,480	08-11-97	3:29p	4-Short Term Scenario Boundary.xls
4-SHOR~2	XLS	1,468,928	08-11-97	5:02p	4-Short Term Scenario Discrete.xls
5-SHOR~1	XLS	852,480	08-11-97	3:15p	5-Short Term Scenario Boundary.xls
5-SHOR~2	XLS	1,469,440	08-11-97	4:51p	5-Short Term Scenario Discrete.xls
6-ABGB~1	XLS	1,087,488	08-13-97	9:37a	6-ABG Boundary.xls
6-ABGD~1	XLS	623,616	08-13-97	4:21p	6-ABG Discrete.xls
7-ABGB~1	XLS	416,256	08-13-97	9:36a	7-ABG Boundary.xls
7-ABGD~1	XLS	623,616	08-13-97	11:00a	7-ABG Discrete.xls
8-ABGB~1	XLS	416,256	08-13-97	9:35a	8-ABG Boundary.xls
8-ABGD~1	XLS	624,128	08-13-97	10:58a	8-ABG Discrete.xls
9-ABGB~1	XLS	1,088,512	08-13-97	9:34a	9-ABG Boundary.xls
9-ABGD~1	XLS	623,616	08-13-97	10:55a	9-ABG Discrete.xls
ABGRET~1	XLS	600,576	08-08-97	12:36p	ABG Retreat.xls
BURNSC~1	XLS	600,064	08-08-97	12:36p	Burns City.xls
CAFETE~1	XLS	603,136	08-08-97	12:37p	Cafeteria.xls
CONVER~1	XLS	20,480	08-08-97	4:03p	Conversion Factors.xls
DGRETR~1	XLS	600,064	08-08-97	12:37p	DG Retreat.xls
DISPER~1	XLS	28,672	08-08-97	10:40a	Dispersion Factors.xls
EBOUND~1	XLS	600,064	08-07-97	5:43p	E Boundary.xls
EMISSI~1	XLS	137,216	08-08-97	4:03p	Emission Factors.xls
EMISSI~2	XLS	710,656	08-12-97	4:49p	Emissions.xls
ENEBOU~1	XLS	600,064	08-07-97	5:43p	ENE Boundary.xls
ESEBOU~1	XLS	600,064	08-07-97	5:43p	ESE Boundary.xls
INDIAN~1	XLS	600,576	08-08-97	12:37p	Indian Springs.xls
LONGTE~1	XLS	649,728	08-11-97	2:25p	Long Term Scenario Boundary.xls
LONGTE~2	XLS	1,080,832	08-11-97	4:36p	Long Term Scenario Discrete.xls
LONGTERM	XLS	48,128	08-06-97	2:05p	longterm.xls
NORTHB~1	XLS	600,576	08-08-97	12:36p	North Bald Eagle.xls
PADANA~1	XLS	600,064	08-08-97	12:36p	Padanaram.xls

```
PLUMEH~1 XLS        20,480  08-07-97  5:13p Plume Heights.xls
RECEPT~1 XLS        21,504  08-07-97  5:12p Receptor List.xls
SEBOUN~1 XLS       600,576  08-07-97  5:43p SE Boundary.xls
SILVER~1 XLS       600,576  08-08-97 12:36p Silverville.xls
SOUTHB~1 XLS       600,064  08-08-97 12:36p South Bald Eagle.xls
TREATM~1 XLS        20,480  08-08-97 10:40a Treatment Quantities.xls
WINDER~1 XLS        76,288  08-07-97  5:43p Wind Erosion - Boundary.xls
WINDER~2 XLS        89,088  08-08-97 10:40a Wind Erosion - Discrete.xls
        64 file(s)     42,840,576 bytes

Total files listed:
       304 file(s)     53,651,600 bytes
        75 dir(s)      46,350,336 bytes free
```