EPA Hazardous Waste No.	Chemical Abstracts No.	Substances
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide Na(CN)
P107	1314-96-1	Strontium sulfide SrS
P108	[1]57-24-9	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	[1]57-24-9	Strychnine and salts
P115	7446-18-6	Sulfuric acid, dithallium (1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Thallium (I) selenite
P115	7446-18-6	Thallium (I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	[1]81-81-2	Warfarin, and salts, when present at concentrations greater than 0.3%
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)

[1]CAS Number given for parent compound only.

(f) the following commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in subsections (a) through (d) of this section, are Toxic Wastes (T). The primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity. These wastes and their corresponding EPA Hazardous Waste Numbers are:

EPA Hazardous Waste No.	Chemical Abstracts No.	Substances
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl
U240	194-75-7	Acetic acid, (2-4-dichlorophenoxy)-, salts and esters
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead (2+) salt
U214	563-68-8	Acetic acid, thallium (1+) salt
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino(2',3':3,4)pyrrolo [1,2-a]indole-4,7-dione,6- amino-8-[((aminocarbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-[1aS-(1aalpha, 8beta, 8aalpha,8balpha)]-
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3—methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis [N,N-dimethyl]-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95—53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)- alpha-hydroxy, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis (2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1, 1'-(2,2-dichloroethylidene)bis [4-chloro]-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4-chloro]-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene) bis [4-methoxy]-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U202	181-07-2	1,2-Benzisothiazol-3-(2H)-one, 1,1-dioxide and salts

EPA Hazardous Waste No.	Chemical Abstracts No.	Substances
703	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
341	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy) methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester,[1S-[1alpha (Z),7(2S*, 3R*), 7aalpha]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U114	1111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U215	6533-73-9	Carbonic acid, dithallium (1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha and gamma isomers
U026	494-03-1	Chlornaphazine
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid HCr_2O_4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1, 4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha, 3beta, 4alpha, 5alpha, 6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	194-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl-S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbestrol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis [2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis- (I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1- trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U359	110-80-5	Ethanol, 2-ethoxy
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-

EPA Hazardous Waste No.	Chemical Abstracts No.	Substances
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U114	[1]111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylene thiourea
U117	60-29-7	Ethyl ether (I)
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro- (I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[(methylnitrosoamino)-carbonyl]amino]-
0126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide H_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one,1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl [1,1'-biphenyl]-4,4'-diyl)]-bis(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium (1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl) tetrahydro-,2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-

EPA Hazardous Waste No.	Chemical Abstracts No.	Substances
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl) bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead (2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorous sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[1-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	56-04-2	4-(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	[1]81-07-2	Saccharin and salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium (I) acetate
U215	6533-73-9	Thallium (I) carbonate
U216	7791-12-0	Thallium (I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Thallium (I) nitrate
U218	62-55-5	Thioacetamide
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene (I,T)
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris (2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	[1]81-81-2	Warfarin, and salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-di methoxy- 18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3 beta, 16 beta, 17 alpha, 18 beta, 20 alpha)-
U249	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less

[1]CAS Number given for parent compound only.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code. Reference: Sections 25117, 25120.2, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.33.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 22-66261.100. RCRA Hazardous Waste.

(a) A hazardous waste is a RCRA hazardous waste if it meets any of the following criteria:

(1) it exhibits any of the characteristics of ignitability, corrosivity, reactivity, or toxicity identified in sections 66261.21, 66261.22(a)(1), 66261.22(a)(2), 66261.23, and 66261.24(a)(1);

(2) it is listed as a hazardous waste in article 4 of this chapter and has not been excluded by the USEPA Administrator from 40 CFR Part 261, Subpart D pursuant to 40 CFR sections 260.20 and 260.22. Wastes excluded by the USEPA Administrator pursuant to 40 CFR sections 260.20 and 260.22 are listed in 40 CFR Part 261, Appendix IX;

(3) it is identified as a hazardous waste pursuant to section 66261.3(a)(2)(B), section 66261.3(a)(2)(D), section 66261.3(a)(2)(E), or section 66261.3(c)(2).

(b) A hazardous waste is presumed to be a RCRA hazardous waste unless or until the generator determines that the waste is non-RCRA hazardous waste pursuant to section 66261.101.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141 and 25159, Health and Safety Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 22-66261.101. Non-RCRA Hazardous Waste.

(a) A hazardous waste is a non-RCRA hazardous waste if it meets all of the following criteria:

(1) it does not exhibit any of the characteristics of ignitability, corrosivity, reactivity or toxicity as identified in sections 66261.21, 66261.22(a)(1), 66261.22(a)(2), 66261.23 and 66261.24(a)(1);

(2) it exhibits any of the characteristics of corrosivity and toxicity identified in sections 66261.22(a)(3), 66261.22(a)(4) and 66261.24 (a)(2) through (a)(8) or otherwise meets the definition of a hazardous waste in section 66261.3(a)(2)(C) or 66261.3(a)(2)(F);

(3) it is not listed as a hazardous waste in article 4 of this chapter or is listed and has been excluded by the USEPA Administrator pursuant to 40 CFR sections 260.20 and 260.22.

(b) A hazardous waste is a non–RCRA hazardous waste if it exhibits any characteristic set forth in article 3 of this chapter and meets any of the following criteria:

(1) it is identified as a potential non–RCRA hazardous waste in section 66261.2(d)(1)(B) or section 66261.2(d)(2)(B), or is identified as a potential non–RCRA hazardous waste in Table 1 of section 66261.2;

(2) it is excluded from classification as a solid waste or a hazardous waste in 40 CFR section 261.4.

(c) A container, or an inner liner from a container, which is empty pursuant to 40 CFR section 261.7, but is required to be managed as a hazardous waste pursuant to section 66261.7 is a non–RCRA hazardous waste.

(d) A waste which is not classified as a non–RCRA hazardous waste pursuant to the criteria in subsections (a) through (c) of this section may be classified as a non–RCRA hazardous waste if the generator can otherwise determine that the waste would not be regulated as a hazardous waste pursuant to subtitle C of RCRA or implementing regulations.

(e) The Department or the USEPA may request the following items from a person claiming that the hazardous waste generated or managed by that person is a non–RCRA hazardous waste:

(1) documentation demonstrating that the waste meets the applicable criteria in subsection (a), (b), (c) or (d) of this section;

(2) analytical information, from a laboratory certified by the Department pursuant to chapter 44 of this division, demonstrating that the extracts from representative samples of the waste, developed using the Toxicity Characteristic Leaching Procedure in Appendix I of chapter 18 of this division, contain none of the substances in section 66261.24(a)(1)(B) at a concentration which equals or exceeds the value for that substance in that section;

(3) representative samples of that waste.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25117.9, 25141 and 25159, Health and Safety Code.

HISTORY

1. New section filed 5–24–91; effective 7–1–91 (Register 91, No. 22).

§ 22–66261.107. Applicability of Extremely Hazardous Waste Criteria.

Any waste which is extremely hazardous pursuant to any of the criteria of section 66261.110 or 66261.113 is an extremely hazardous waste and shall be managed in accordance with the specific provisions of this division pertaining to extremely hazardous waste.

NOTE: Authority cited: Sections 208 and 25141, Health and Safety Code. Reference: Sections 25115, 25117 and 25141, Health and Safety Code.

HISTORY

1. New section filed 5–24–91; effective 7–1–91 (Register 91, No. 22).

§ 22–66261.110. Extremely Hazardous Waste Criteria.

(a) A waste, or a material, is extremely hazardous if it:

(1) has an acute oral LD_{50} less than or equal to 50 milligrams per kilogram; or

(2) has an acute dermal LD_{50} less than or equal to 43 milligrams per kilogram; or

(3) has an acute inhalation LC_{50} less than or equal to 100 parts per million as a gas or vapor; or

(4) contains any of the substances listed in section 66261.24(a)(7) at a single or combined concentration equal to or exceeding 0.1 percent by weight; or

(5) has been shown through experience or testing that human exposure to the waste or material may likely result in death, disabling personal injury or serious illness because of the carcinogenicity, high acute or chronic toxicity, bioaccumulative properties, or persistence in the environment of the waste or material; or

(6) is water–reactive.

(b) A waste containing one or more materials which are extremely hazardous according to any criterion of subsection (a)(1) or (a)(2) of this section is not extremely hazardous if the generator determines that neither the calculated acute oral toxicity nor the calculated acute dermal toxicity of the waste using the equation in section 66261.24(c) is numerically equal to or less than the toxicity limits prescribed in subsection (a)(1) or (a)(2) of this section and the waste is not extremely hazardous by any other criterion of this section.

NOTE: Authority cited: Sections 208 and 25141, Health and Safety Code. Reference: Sections 25115, 25117 and 25141, Health and Safety Code.

HISTORY

1. New section filed 5–24–91; effective 7–1–91 (Register 91, No. 22).

§ 22–66261.113. Total Threshold Limit Concentration Values of Persistent and Bioaccumulative Toxic Substances in Extremely Hazardous Wastes.

(a) Any waste containing a substance listed in subsection (b) of this section at a concentration equal to or exceeding its listed total threshold limit concentration is an extremely hazardous waste.

(b) List of Persistent and Bioaccumulative Toxic Substances and Their Total Threshold Limit Concentration (TTLC) Values:

Substance	*TTLC (Wet–Weight in mg/kg)*
Aldrin	140
Arsenic and/or arsenic compounds	50,000 (as As)
Beryllium and/or beryllium compounds*	7,500 (as Be)
Cadmium and/or cadmium compounds*	10,000 (as Cd)
Chlordane	250
2,4–Dichlorophenoxyacetic acid	10,000
Dieldrin	800
Dioxin (2,3,7,8–TCDD)	1
Endrin	20
Heptachlor	470
Kepone	2,100
Lead compounds, organic	1,300 (dry weight basis; as Pb)
Lindane	400
Mercury and/or mercury compounds	2,000 (as Hg)
Mirex	2,100
Polychlorinated biphenyls (PCBs)	5,000
Selenium and/or selenium compounds*	10,000 (as Se)
Thallium and/or thallium compounds*	70,000 (as Tl)
Toxaphene	500
2,4,5–Trichlorophenoxypropionic acid	1,000

*In the case of elemental metals, the specified concentration limits apply only if the metals are in a friable, powdered or finely divided state.

NOTE: Authority cited: Sections 208 and 25141, Health and Safety Code. Reference: Sections 25115, 25117 and 25141, Health and Safety Code.

HISTORY

1. New section filed 5–24–91; effective 7–1–91 (Register 91, No. 22).

§ 22–66261.120. List of Special Wastes.

(a) The following is a noninclusive list of wastes which may be classified as special wastes pursuant to section 66261.122:

(1) ash from burning of fossil fuels, biomass and other combustible materials;

(2) auto shredder waste;

(3) baghouse and scrubber wastes from air pollution control;

(4) catalyst from petroleum refining and chemical plant processes;

(5) cement kiln dust;

(6) dewatered sludge from treatment of industrial process water;

(7) dewatered tannery sludge;

(8) drilling mud from drilling of gas and oil wells;

(9) refractory from industrial furnaces, kilns and ovens;

(10) sand from sandblasting;

(11) sand from foundry casting;

(12) slag from coal gasification;

(13) sulfur dioxide scrubber waste from flue gas emission control in combustion of fossil fuels;

(14) tailings from the extraction, beneficiation and processing of ores and minerals;

NOTE: Authority cited: Sections 208 and 25140, Health and Safety Code. Reference: Sections 25117 and 25140, Health and Safety Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 22-66261.122. Criteria and Requirements of a Special Waste.

(a) A hazardous waste which meets all of the following criteria and requirements shall be classified as a special waste upon application pursuant to section 66261.124:

(1) it is a solid, a water-based sludge or a water-based slurry of which the solid constituents are substantially insoluble in water;

(2) it is a hazardous waste only because:

(A) it contains a persistent or bioaccumulative substance listed in section 66261.24(a)(2)(A) at a solubilized and extractable concentration exceeding its Soluble Threshold Limit Concentration (STLC), or at a total concentration exceeding its Total Threshold Limit Concentration (TTLC), as said STLC and TTLC values are set forth in section 66261.24(a)(2)(A) and determined as prescribed in Appendix II of this chapter, except that:

1. it shall contain no persistent or bioaccumulative substance listed in section 66261.24(a)(2)(A) at a solubilized and extractable concentration in milligrams per kilogram of waste exceeding the TTLC value for the substance as set forth in section 66261.24(a)(2)(A) and determined as prescribed in Appendix II of this chapter; and

2. it shall contain no persistent or bioaccumulative inorganic substance listed in section 66261.113(b) at a concentration equal to or exceeding the TTLC value of the substance as set forth in section 66261.113(b).

(b) Special wastes do not include wastes which meet any of the following criteria:

(1) wastes which are hazardous wastes pursuant to or because of:

(A) any characteristic of a hazardous waste or other provision set forth in sections 66261.21, section 66261.22, section 66261.23 or section 66261.24(a)(3) through (a)(7); or

(B) any criterion of an extremely hazardous waste or other provision set forth in section 66261.110 or section 66261.113; or

(C) any constituent, except for a substance or material listed in section 66261.24(a)(2)(A), which experience or testing has shown to pose a threat to human health or the environment because of its carcinogenicity, chronic toxicity, bioaccumulative properties or persistence in the environment; or

(D) the characteristic of toxicity, as this characteristic is set forth in section 66261.24(a)(1); or

(E) the lists in article 4 of this chapter, unless a waste is excluded by the USEPA Administrator from 40 CFR Part 261, Subpart D pursuant to 40 CFR sections 260.20 and 260.22. Wastes excluded by the USEPA Administrator pursuant to 40 CFR sections 260.20 and 260.22 are listed in 40 CFR 261 Part 261, Appendix IX;

(2) wastes which contain any of the following:

(A) more than 1.0 percent by weight of any organic substance or mixture of organic substance which is toxic pursuant to section 66261.24(a)(3), section 66261.24(a)(4), or section 66261.24(a)(5); or

(B) more than 0.1 percent by weight of any organic substance or mixture of organic substance which is extremely hazardous pursuant to Appendix X of this chapter or section 66261.110(a)(1), section 66261.110(a)(2), section 66261.110(a)(3), or section 66261.110(a)(4); or

(C) any organic substance listed in section 66261.24(a)(2)(B) at a total concentration exceeding the STLC value given for that substance; or

(D) any inorganic or organic material which is extraneous to the waste as it is normally produced by the producer of the waste, excepting material which are incidental to, or necessary for, the handling of the waste;

(3) hazardous wastes for which there are land disposal restrictions set forth in section 66268.32 and are defined in Health and Safety Code section 25122.7.

NOTE: Authority cited: Sections 208 and 25141, Health and Safety Code. Reference: Sections 25117 and 25141, Health and Safety Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 22-66261.124. Classification of a Waste as a Special Waste.

(a) A person who wishes to classify and manage a hazardous waste as a special waste shall obtain prior written approval from the Department for such classification and management. A person seeking approval to classify and manage a hazardous waste as a special waste shall submit an application to the Department which includes all the following information:

(1) the name and address of the applicant and, if different, a billing address for receipt of the fee assessment required by Health and Safety Code section 25205.8;

(2) the address where the waste is generated and located;

(3) a description of the waste which shall include its source, physical state, quantity and rate of generation;

(4) chemical analysis data showing that the waste meets the requisites of a special waste pursuant to section 66261.122(a)(2);

(5) chemical analysis data, chemical and physical test data, and bioassay data, or factual information on the origin of the waste, which establish that it meets the criteria and requirements of special wastes in section 66261.122(a)(1) and section 66261.122(b). Data shall include analyses from a minimum of four representative samples as specified in chapter nine of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd Edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11 of this chapter).

(b) The Department, within 30 days of receipt of an application for approval to classify and manage a waste as special waste pursuant to subsection (a) of this section, shall acknowledge in writing receipt of the application. Pending written approval from the Department, the applicant shall manage the waste in accordance with all provisions of this division.

(c) The Department, within 60 days of receipt of an application for approval to classify and manage a waste as special waste pursuant to subsection (a) of this section, shall notify the applicant in writing that classification of the waste as special waste is approved or disapproved or that the application is incomplete or inadequate and what additional information is needed.

(d) If the application is incomplete or inadequate, the Department, within 60 days of receipt of adequate additional information, shall notify the applicant in writing that classification of the waste as special waste is approved or disapproved.

(e) When the Department has notified the applicant in writing that the application is incomplete or inadequate and what additional information is needed, the application will be considered disapproved if the applicant fails to provide the additional information within 90 days from the date the information was requested.

(f) If the applicant cannot submit the additional information within the time frame specified in subsection (e) of this section, the applicant shall notify the Department in writing the reason for the delay and shall specify an additional time frame, up to 90 days, within which the information shall be submitted.

(g) The application will be considered disapproved if the applicant fails to provide the additional information by the end of the additional time frame specified in subsection (f) of this section.

(h) If the Department disapproves the application, the Department shall specify in writing the reason(s) for the disapproval.

(i) Notwithstanding the time frames specified above, the Department shall not notify the applicant of the approval or disapproval of an application until after the applicant submits payment of the fee assessed by the

Board of Equalization pursuant to Health and Safety Code section 25205.8.

(j) Upon receipt of written approval from the Department, the applicant may classify and manage the waste as special waste pursuant to section 66261.126.

(k) For wastes which are continuously or repetitively generated at the same facility, from the same process, utilizing the same kinds of materials (with respect to origin, composition and properties), the requirements of this section can be met by the submission of the required information either for each separately generated quantity of the waste or for a representative sample of the continuously or repetitively generated waste.

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code and Section 15367, Government Code. Reference: Sections 25205.8 and 25150, Health and Safety Code and Section 15367, Government Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 22-66261.126. Management of Special Wastes.

(a) A special waste may be disposed of at a landfill disposal facility which is not operated under a hazardous waste facility permit or an interim status document provided:

(1) the facility is operated under waste discharge requirements allowing disposal of the special waste which were issued by the Regional Water Quality Control Board with jurisdiction over the facility; and

(2) the owner or operator of the facility has been granted a variance pursuant to section 66260.210 of this division which allows the special waste to be disposed of at the facility.

(b) Except as provided in subsection (c) of this section, the owner and operator of a landfill disposal facility which is not operated under a hazardous waste facility permit and where a special waste is disposed of are subject to all requirements of this division which are not specifically waived by a variance granted pursuant to section 66260.210 of this division, including, but not limited to, enforcement, inspection, manifest, special measures, incompatible waste, reporting, and payment of land disposal fee requirements.

(c) The owner and operator of a landfill disposal facility authorized to dispose of a special waste pursuant to subsection (a) of this section shall be exempt from requirements implementing Health and Safety Code sections 25245 and 25246 relative to closure and postclosure plans and financial assurances so long as the facility does not handle, treat, store or dispose of any hazardous waste not specifically authorized by a variance issued by the Department or by Health and Safety Code section 25143.7.

(d) The generator of a special waste shall be subject to all generator requirements of this division.

(e) The transporter of a special waste shall be subject to all transporter requirements of this division.

(f) The owner or operator of a facility for the recycling, storage or treatment of a special waste shall have a hazardous waste facility permit for the recycling, treatment or storage of the waste at the facility.

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code. Reference: Sections 25117, 25143 and 25150, Health and Safety Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Appendix I

Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. In addition to the sampling methods described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, 1986 (incorporated by reference, see Section 66260.11), samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Department to be representative of the waste:

Standard Practice for Sampling Bituminous Materials, (e.g., extremely viscous liquid), ASTM Standard D140-88;

Standard Method of Collection and Preparation of Coke Samples for Laboratory Analysis, (e.g., crushed or powdered material), ASTM Standard D346-78;

Standard Guide for Investigating and Sampling Soil and Rock, (e.g., soil or rock-like material), ASTM Standard D420-87;

Standard Practice for Soil Investigation and Sampling by Auger Borings, (e.g., soil-like material), ASTM Standard D1452-80;

Standard Methods for Collection of a Gross Sample of Coal, (e.g., fly Ash-like material), ASTM Standard D2234-82.

[ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103] (incorporated by reference, see Section 66260.11).

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Section 25141, Health and Safety Code and 40 CFR Part 261 Appendix I.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Appendix II

Waste Extraction Test (WET) Procedures

(a) The Waste Extraction Test (WET) described in this appendix shall be used to determine the amount of extractable substance in a waste or other material as set forth in section 66261.24(a)(2).

(b) Except as provided in subdivision (d) of this appendix, the WET shall be carried out if the total concentration in the waste, or other material, of any substance listed in section 66261.24(a)(2) equals or exceeds the STLC value, but does not exceed the TTLC value, given for that substance. The total concentrations of substances listed in section 66261.24(a)(2) shall be determined by analysis of samples of wastes, or other materials, which have been prepared, or meet the conditions, for analysis as set forth in subdivisions (c) and (d) of this appendix. Methods used for analysis for total concentrations of substances listed in section 66261.24(a)(2) shall be those given in the following documents or alternate methods that have been approved by the Department pursuant to section 66260.21:

(1) for metal elements and their compounds, the waste shall be digested according to the indicated methods described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982 (incorporated by reference, see section 66260.11):

(A) all listed metal elements and their compounds, except hexavalent chromium: Method 3050;

(B) hexavalent chromium: Method 3060;

(2) for all substances listed in section 66261.24(a)(2), except organic lead compounds, the methods and references in which the methods can be found are listed in Appendix III, Table 4 of this chapter;

(3) the method used for analysis of organic lead compounds is given in Appendix XI of this chapter.

(c) Samples shall be prepared for analysis for total and extractable content of substances listed in section 66261.24(a)(2)(A) and for extractable content of substances listed in section 66261.24(a)(2)(B) as follows:

(1) Type i: if the waste or other material is a millable solid, the sample shall be passed directly, or shall be milled to pass, through a No. 10 (two millimeter) standard sieve before it is analyzed. If the sample contains non-friable solid particles which do not pass directly through a No. 10 sieve and which are extraneous and irrelevant as hazardous constituents to the waste or other material, they shall be removed to the extent feasible by mechanical means and discarded. Solids which remain in the waste or other material after removal of the aforesaid extraneous particles shall be milled to pass through a No. 10 sieve and shall then be combined and mixed well with the solids which passed through the sieve without milling. The reconstituted sample shall then be analyzed as prescribed in this appendix;

(2) Type ii: if the waste or other material is a filterable mixture of liquid and solids in which the solids constitute five-tenths (0.5) percent by weight or greater of the sample, the liquid and solids shall be separated by filtration through a 0.45 micron membrane filter. The filtrate so obtained is to be designated as Initial Filtrate. Its volume is determined, and

it is retained. The separated solids shall be sieved in a No. 10 sieve and any nonfriable extraneous particles of the kinds described in subdivision (c)(1) of this appendix which do not pass through the sieve shall be removed to the extent feasible by mechanical means and discarded. The solids which remain after removal of the extraneous particles shall be milled to pass through a No. 10 sieve and shall be recombined with solids which passed through the sieve without milling. This recombined solid material shall be extracted following the procedure in subdivision (g) of this appendix. A ratio of 10 milliliters of extraction solution per gram of solid shall be utilized with appropriate modifications for extraction vessel size. After completion of solids extraction, the filtered extractant is combined with Initial Filtrate, mixed thoroughly and analyzed as described in subdivision (g)(3) of this appendix;

(3) Type iii: if the waste or other material is a nonfilterable and nonmillable sludge, slurry, or oily, tarry or resinous material, it shall be analyzed as received unless it contains non-friable extraneous and irrelevant solid particles of the kinds described in subdivision (c)(l) of this appendix. If it contains such solid particles and they are of such size as not to pass through a No. 10 sieve, they shall be removed to the extent feasible by mechanical means and discarded. The remainder of the sample shall be analyzed as prescribed in this appendix;

(4) if it is necessary to dry a solid sample or the solids fraction of a sample before sieving, milling or removal of extraneous solids, or if a sample is dried prior to analysis, all weight losses due to drying shall be determined, and these losses and the conditions of drying shall be reported.

(d) Samples shall be prepared for analysis for total content of substances listed in section 66261.24(a)(2)(B) as follows:

(1) type i: if the waste or other material is a millable solid, the sample shall be passed directly, or shall be milled to pass, through a one-millimeter standard sieve before it is analyzed. If the sample contains non-friable solid particles which do not pass directly through a one-millimeter sieve and which are extraneous and irrelevant as hazardous constituents to the waste or other material, they shall be removed to the extent feasible by mechanical means and discarded. Solids which remain in the waste or other material after removal of the aforesaid extraneous particles shall be milled to pass through a one-millimeter sieve and shall then be combined and mixed well with the solids which passed through the sieve without milling. The reconstituted sample shall then be analyzed as prescribed in this appendix;

(2) type ii: if the waste or other material is a filterable mixture of liquid and solids in which the solids constitute five-tenths (0.5) percent by weight or greater of the sample, the liquid and solids shall be separated by filtration through a 0.45 micron membrane filter. The filtrate so obtained is to be designated as Initial Filtrate. Its volume is determined, and it is retained. The separated solids shall be sieved in a one-millimeter sieve and any nonfriable extraneous particles of the kinds described in subdivision (d)(1) of this appendix which do not pass through the sieve shall be removed to the extent feasible by mechanical means and discarded. The solids which remain after removal of the extraneous particles shall be milled to pass through a one-millimeter sieve and shall be recombined with solids which passed through the sieve without milling. This recombined solid material shall be extracted following the procedure in subdivision (g) of this appendix. A ratio of 10 milliliters of extraction solution per gram of solid shall be utilized with appropriate modifications for extraction vessel size. After completion of solids extraction, the filtered extractant is combined with Initial Filtrate, mixed thoroughly and analyzed as described in subdivision (9)(3) of this appendix;

(3) type iii: if the waste or other material is a nonfilterable and nonmillable sludge, slurry, or oily, tarry or resinous material, it shall be analyzed as received unless it contains non-friable extraneous and irrelevant solid particles of the kinds described in subdivision (d)(1) of this appendix. If it contains such solid particles and they are of such size as not to pass through a one-millimeter sieve, they shall be removed to the extent feasible by mechanical means and discarded. The remainder of the sample shall be analyzed as prescribed in this appendix;

(4) if it is necessary to dry a solid sample or the solids fraction of a sample before sieving, milling or removal of extraneous solids, or if a sample is dried prior to analysis, all weight losses due to drying shall be determined, and these losses and the conditions of drying shall be reported.

(e) If the waste or other material is a liquid containing less than five-tenths (0.5) percent by weight of undissolved solids, it shall not be subject to the WET procedure, but shall be analyzed directly for the substances listed in section 66261.24(a)(2). The waste shall be classified as a hazardous waste if the total concentration in the waste of any substances listed in section 66261.24(a)(2) exceeds the TTLC value given for that substance. If, however, the total concentration is less than the TTLC but exceeds the STLC when expressed on a milligrams per liter basis, the waste or other material shall be filtered through a 0.45 micron membrane filter, the solids discarded and the filtrate shall be analyzed directly for the substances listed in section 66261.24(a)(2). The waste shall be classified as a hazardous waste if the concentration in the filtrate of any of the substances listed in section 66261.24 (a)(2) exceeds the STLC value given for that substance.

(f) The WET extraction solution shall consist of 0.2 M sodium citrate at pH 5.0 + 0.1, which is prepared by titrating an appropriate amount of analytical grade citric acid in deionized water with 4.0 N NaOH, except that the extraction solution for the determination of chromium (VI) shall consist of deionized water.

(g) The extraction procedure shall be as follows:

(1) fifty grams of sample, or less if it is a type ii sample prepared pursuant to subdivision (c)(2) or (d)(2) of this appendix, obtained pursuant to subdivision (c), (d), or (e) of this appendix shall be placed in a clean polyethylene or glass container designated the Treatment, capable of physically withstanding the extraction procedure and which was rinsed previously with, in succession, an aqueous 1:1 ratio by volume nitric acid solution and deionized water. If the extract will be analyzed for any of the organic substances listed in section 66261.24(a)(2), a glass container shall be used. Furthermore, a container of the same size, shape and material shall be used for an extraction designated as the Blank, which shall be carried through the same procedure as the Treatment, but without addition of the sample;

(2) five hundred milliliters of extraction solution, or less if the waste sample is a type ii sample prepared pursuant to subdivision (c)(2) or (d)(2) of this appendix, shall be added to the Treatment and Blank containers, which shall be then fitted with covered air scrubbers extended well into the extraction solutions and flushed vigorously with nitrogen gas for 15 minutes so as to remove and exclude atmospheric oxygen from the extraction medium. If the sample is to be analyzed for any volatile substance, such as trichloroethylene, the sample shall be added after deaeration with nitrogen to avoid volatilization loss. After deaeration the containers shall be quickly sealed with tightly fitting caps and agitated, using a table shaker, an overhead stirrer or a rotary extractor, operated at a speed which shall maintain the sample in a state of vigorously agitated suspension. Required equipment is described in test method 1310 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11). The temperature during the extraction shall be maintained between 20 and 40 degrees centigrade. After 48 hours of extracting, the contents of the Treatment and Blank containers shall be either filtered directly or centrifuged and then filtered. Filtering shall be through a medium porosity prefilter and then through a 0.45 micron membrane filter, using a clean, thick-walled suction flask. For coarser solids, prefiltration shall not be necessary. Pressure filtration shall be an optional alternative to vacuum filtration. If the extracts are first centrifuged, glass or polyethylene bottles shall be used as prescribed for extraction. For very fine solids, centrifuging at as high as 10,000 X G may be necessary. After centrifugation, the liquids shall be decanted, prefiltered if necessary, and then passed through a 0.45 micron membrane filter. All filters shall be of low and identified extractable heavy metals, fluoride and organic chemicals content;

(3) if the filtered extracts are to be analyzed only for the metal elements listed in section 66261.24(a)(2)(A), the filtered extracts from the Treatment and Blank shall be transferred to clean polyethylene bottles and acidified with nitric acid to five percent by volume acid content soon after each extract is filtered. For those wastes or waste materials classified under subdivision (c)(2) or (d)(2) of this appendix, the Treatment shall be the Initial Filtrate combined with the extract generated by the WET extraction of the initially separated solids. Similarly the Blank in this instance shall be the filtrate generated by the WET Blank accompanying the initially separated solids, to which is subsequently added a volume of deionized water equivalent to that of the Initial Filtrate. These procedures shall be followed prior to acidification of Treatment and Blank solutions with nitric acid to five percent (by volume) acid content. The bottle shall then be stored at room temperature or frozen. If the extracts are also to be analyzed for the organic substances listed in section 66261.24(a)(2)(B), or for the organic substances only, the filtered extracts shall be transferred to clean glass bottles. If the extracts are to be analyzed for fluoride, they shall be transferred to clean polyethylene bottles. These extracts, containing organic substances or flouride, shall not be acidified, but shall be frozen soon after each extract is obtained and held frozen until the day of analysis, unless the extracts are analyzed within 24 hours.

(h) Sample analysis and data treatment shall be as follows:

(1) each of the filtered extracts from the Treatment and Blank extractions shall have been acidified to five percent by volume nitric acid, and stored at room temperature or frozen in polyethylene bottles or kept frozen without addition of acid in glass bottles until the day of analysis, as prescribed. Each of the extracts shall be thoroughly mixed just prior to being individually analyzed for the substances listed in section 66261.24(a)(2) in order to determine whether the extractable concentration (EC) in the waste or other material exceeds the STLC for any of the substances listed. The extracts shall be analyzed according to the procedures identified in subdivisions (b)(2) and (b)(3) of this appendix;

(2) the net EC of a substance in the Treatment sample which is listed in section 66261.24(a)(2) shall be calculated and reported as milligrams per liter of sample (mg/l). This value is derived after subtracting the concentration of the substance in the appropriate Blank extract from that concentration determined in the Treatment extract.

NOTE: Authority cited: Sections 208 and 25141, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Appendix III

Chemical Analysis Test Methods

Tables 1, 2, and 3 specify the appropriate analytical procedures, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, U.S. Environmental Protection Agency (incorporated by reference, see Section 66260.11) which shall be used to determine whether a sample contains a given Appendix VII or Appendix VIII toxic constituent. Table 4 specifies the analytical methods and references which shall be used to determine whether a sample contains a given persistent and bioaccumulative toxic substance listed in Section 66261.24 (a)(2). Table 1 identifies each Appendix VII or Appendix VIII organic constituent along with the approved measurement method. Table 2 identifies the corresponding methods for inorganic species. Table 3 summarizes the contents of SW-846 and supplies specific section and method numbers for sampling and analysis methods.

Prior to final sampling and analysis method selection the analyst should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

TABLE 1

Analysis Methods for Organic Chemicals Contained in SW-846, Second Edition

Compound	*Second Edition Method Numbers*
Acetonitrile	8030, 8240
Acrolein	8030, 8240
Acrylamide	8015, 8240
Acrylonitrile	8030, 8240
2-Amino-1-methylbenzene (o-Toluidine)	8250
4-Amino-1-methylbenzene (p-Toluidine)	8250
Aniline	8250
Benzene	8020,8024
Benz(a)anthracene	8100, 8250, 8310
Benzo(a)pyrene	8100, 8250, 8310
Benzotrichloride	8120, 8250
Benzyl chloride	8120, 8250
Benzo(b)fluoranthene	8100, 8250, 8310
Bis(2-chloroethoxymethane)	8010, 8240
Bis(2-chloroethyl)ether	8010, 8240
Bis(2-chloroisopropyl)ether	8010, 8240
Carbon disulfide	8015, 8240
Carbon tetrachloride	8010, 8240
Chlordane	8080, 8250
Chlorinated biphenyls	8080, 8250
Chlorinated dibenzo-p-dioxins	8280
Chlorinated dibenzofurans	8280
Chloroacetaldehyde	8010, 8240
Chlorobenzene	8020, 8240
Chloroform	8010, 8240
Chloromethane	8010, 8240
2-Chlorophenol	8040, 8250
Chrysene	8100, 8250, 8310
Creosote[1]	8100, 8250
Cresol(s)	8040, 8250
Cresylic Acid(s)	8040, 8250
Dichlorobenzene(s)	8010, 8120, 8250
Dichloroethane(s)	8010, 8240
Dichloromethane	8010, 8240
Dichlorophenoxyacetic acid	8150, 8250
Dichloropropanol	8120, 8250
1,1-Dimethylhydrazine (UDMH)	8250
2,4-Dimethylphenol	8040, 8250
Dinitrobenzene	8090, 8250
4,6-Dinitro-o-cresol	8040, 8250
2,4-Dinitrotoluene	8090, 8250
2,6-Dinitrotoluene	8060, 8250
Endrin	8080, 8250
2-Ethoxyethanol	8030, 8240
Ethyl ether	8015, 8240
Ethylene dibromide	8010, 8240
Ethylene thiourea	8250, 8330
Formaldehyde	8015, 8240
Formic acid	8250
Heptachlor	8080, 8250
Hexachlorobenzene	8120, 8250
Hexachlorobutadiene	8120, 8250
Hexachloroethane	8010, 8240
Hexachlorocyclopentadiene	8120, 8250
Lindane	8080, 8250
Maleic anhydride	8250
Methanol	8010, 8240
Methomyl	8250
Methyl ethyl ketone	8015, 8240
Methyl isobutyl ketone	8015, 8240
Napthalene	8100, 8250
Napthoquinone	8090, 8250
Nitrobenzene	8090, 8250
4-Nitrophenol	8040, 8240
2-Nitropropane	8030, 8240
Paraldehyde (trimer of acetaldehyde)	8015, 8240
Pentachlorophenol	8040, 8250
Phenol	8040, 8250
Phorate	8140

Phosphorodithioic acid esters	8140
Phthalic anhydride	8090, 8250
2-Picoline	8090, 8250

Compound	*Second Edition Method Numbers*
Pyridine	8090, 8250
Tetrachlorobenzene(s)	8120, 8250
Tetrachloroethane(s)	8010, 8240
Tetrachloroethene	8010, 8240
Tetrachlorophenol	8040, 8250
Toluene	8020, 8024
Toluene diisocyanate(s)	8250
Toluenediamine	8250
2,4-Toluenediamine	8250
2,6-Toluenediamine	8250
3,4-Toluenediamine	8250
Toxaphene	8080, 8250
Trichloroethane	8010, 8240
Trichloroethene(s)	8010, 8240
Trichlorofluoromethane	8010, 8240
Trichlorophenol(s)	8040, 8250
2,4,5-Trichlorophenoxy propionic acid	8150, 8250
Trichloropropane	8010, 8240
Vinyl chloride	8010, 8240
Vinylidene chloride	8010, 8240
Xylene	8020, 8240

[1]Analyze for phenanthrene and carbazole; if these are present in a ratio between 1.4:1 and 5:1 creosote shall be deemed present.

TABLE 2

Analysis Methods for Inorganic Chemicals Contained in SW-846, Second and Third Editions

Compound	*Third Edition Method(s)*	*Second Edition Method(s)*
Aluminum	6010	
Antimony	6010	7040, 7041
Arsenic	6010	7060, 7061
Barium	6010	7080, 7081
Beryllium	6010, 7090, 7091	
Boron	6010	
Cadmium	6010	7130, 7131
Calcium	6010	
Chromium	6010	7190, 7191
Chromium, Hexavalent	7198	7195, 7196, 7197
Cobalt	6010	
Copper	6010, 7210, 7211	
Iron	6010, 7380, 7381	
Lead	6010	7420, 7471
Magnesium	6010	
Manganese	6010, 7460, 7461	
Mercury	7470, 7471	
Molybdenum	6010	
Nickel	6010	7520, 7521
Osmium	7550	
Potassium	6010	
Selenium	6010	7740, 7741
Silicon	6010	
Silver	6010	7760, 7761
Sodium	6010, 7770	
Thallium	6010, 7840, 7841	
Vanadium	6010, 7910, 7911	
Zinc	6010, 7950, 7951	
Cyanides		9010
Total Organic Halides	9022	9020
Sulfides		9030
Sulfates	9035, 9036, 9038	
Total Organic Carbon	9060	
Phenolics	9065, *9066, 9067	
Oil and Grease	9070, 9071	
Total Coliform	9131, 9132	
Nitrate	9200	
Chlorides	9250, 9251, 9252	
Gross Alpha and Gross Beta	9310	
Alpha-Emitting Radium Isotopes	9315	
Radium-228	9320	

*When Method 9066 is used it must be preceded by the manual distillation specified in procedure 7.1 of Method 9065. Just prior to distillation in Method 9065, adjust the sulfuric acid-preserved sample to pH 4 with 1+9 NaOH. After the manual distillation is completed, the autoanalyzer manifold is simplified by connecting the re-sample line directly to the sampler.

Sodium chlorate
Sodium chlorite
Sodium chromate
Sodium dichromate, Sodium bichromate
Sodium fluoride
Sodium hydride
Sodium hydroxide, Caustic soda, Lye
Sodium hypochlorite
Sodium methylate, Sodium methoxide
Sodium molybdate
Sodium nitrate, Soda niter
Sodium nitrite
Sodium oxide, Sodium monoxide
Sodium perchlorate
Sodium permanganate
Sodium peroxide
Sodium picramate
Sodium potassium alloy, Nak, Nack
Sodium sulfide and, Sodium hydrosulfide
Stannic chloride, Tin tetrachloride
Strontium nitrate
Styrene, Vinylbenzene
Succinic acid peroxide
Sulfide salts (soluble)
Sulfur chloride, Sulfur monochloride
Sulfur pentafluoride
Sulfur trioxide, Sulfuric anhydride
Sulfuric acid, Oil of vitriol, Battery acid
Sulfurous acid
Sulfuryl chloride, Sulfonyl chloride
Sulfuryl fluoride, Sulfonyl fluoride
SUPRACIDE, ULTRACIDE, S-[(5-Methoxy-2-oxo-1,3,4-thiadiazol-3(2H)-yl) methyl]-O,O-dimethyl phosphorodithioate
SURECIDE, Cyanophenphos, O-para-Cyano-phenyl-O-ethyl phenyl phosphonothioate
Tellurium hexafluoride
TELODRIN, Isobenzan; 1,3,4,5,6,7,8,-8-Octachloro-1,3,3a,4,7,7a-hexahydro-4,7-methanoisobenzofuran
TEMIK, Aldicarb, 2-Methyl-2(methylthio) propionaldehyde-O-(methylcarbamoyl) oxime
Tetrahydrofuran, THF
Tetrahydrophthalic anhydride, Memtetra-hydrophthalic anhydride
TETRALIN, Tetrahydronaphthalene
Tetramethyl succinonitrile
Tetrasul, ANIMERT V-101, S-para-Chlorophenyl-2,4,5-trichlorophenyl sulfide
Thiocarbonychloride, Thiophosgene
Thionazin, ZINOPHOS; O,O-Tetramethylthiuram monosulfide
Thionyl chloride, Sulfur oxychloride
Thiophosphoryl chloride
Tin compounds (organic)
Titanium sulfate
Titanium tetrachloride, Titanic chloride
Toluene-2,4-diisocyanate, TDI
TRANID, exo-3-Chloro-endo-6-cyano-2-norbornanone-O-(methylcarbamoyl) oxime
Trichloroisocyanuric acid
Trichlorosilane, Silicochloroform
Trimethylamine, TMA
Trinitroanisole; 2,4,6-Trinitrophenyl methyl ether
Trinitronaphthalene, Naphtite
2,4,6-Trinitroresorcinol, Styphnic acid
2,4,6-Trinitrotoluene, TNT
Tungstic acid and salts
Turpentine
Uranyl nitrate, Uranium nitrate
Urea nitrate
n-Valeraldehyde, n-Pentanal (and isomers)
Vanadium oxytrichloride
Vanadium tetrachloride
Vanadium tetraoxide
Vanadium trioxide, Vanadium sesquioxide
Vanadyl sulfate, Vanadium sulfate
Vinyl acetate
Vinylidene chloride, VC
Vinyltrichlorosilane
VX, O-Ethyl methyl phosphoryl N,N-diisopropyl thiocholine
WEPSYN 155, WP 155, Triamiphos, para-(5-Amino-3-phenyl-1H-1,2,4-triazol-1-yl)- N,N,N′,N′-tetramethyl phosphonic diamide
Xylene, Dimethylbenzene (ortho, meta, para)
Zinc (powder)
Zinc ammonium nitrate
Zinc chloride
Zinc compounds
Zinc nitrate
Zinc permanganate
Zinc peroxide, Zinc dioxide
Zinc sulfate
Zirconium chloride, Zirconium tetrachloride

§ 23–2610. Definitions/Applicability of Definitions.

(a) Unless the context clearly requires otherwise, the terms used in this chapter shall have the definitions provided by the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code, or by section 2611 of this article.

(b) Except as otherwise specifically provided herein, the following terms are defined in section 25281 of Chapter 6.7 of Division 20 of the Health and Safety Code:

Automatic Line Leak Detector
Board
Department
Facility
Federal Act
Hazardous Substance
Local Agency
Operator
Owner
Person
Pipe
Primary Containment
Product-Tight
Release
Secondary Containment
Single-Walled
Special Inspector
Storage/Store
SWEEPS
Tank
Tank Integrity Test
Tank Tester
Unauthorized Release
Underground Storage Tank
Underground Tank System/Tank System

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281, 25282 and 25291, Health and Safety Code.

HISTORY

1. Renumbering and amendment of former section 2610 to section 2620 and renumbering and amendment of former section 2620 to section 2610 filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2611. Additional Definitions.

Unless the context clearly requires otherwise, the following definitions shall apply to terms used in this chapter.

"Coatings expert" means a person who, by reason of thorough training, knowledge and experience in the coating of metal surfaces, is qualified to engage in the practice of internal tank lining inspections. This person must be independent of any lining manufacturer or applicator and have no financial interest in the tank or tanks being monitored.

"Continuous monitoring" means a system using equipment which routinely performs the required monitoring on a periodic or cyclic basis throughout each day.

"Corrosion specialist" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on metal underground storage tanks and associated piping. The term includes only persons who have been certified as being qualified by the National Association of Corrosion Engineers or registered professional engineers who have certification or licensing that requires education and experience in corrosion control of underground storage tanks and associated piping.

"Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. The term includes only persons who have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

"Emergency containment" means a containment system for accidental spills which are infrequent and unpredictable.

"Existing underground storage tank" means any underground storage tank that was installed prior to January 1, 1984. The term includes any underground storage tank which has contained a hazardous substance in the past and, as of January 1, 1984, had the physical capability of being used again (i.e., it had not been removed or completely filled with an inert solid).

"Farm tank" means any one or combination of tanks located on a farm that holds no more than 1,100 gallons of motor vehicle fuel which is used primarily for agricultural purposes and is not held for resale.

"First ground water" means the uppermost saturated horizon encountered in a bore hole.

"Ground water" means subsurface water which will flow into a well.

"Heating oil tank" means a tank located on a farm or at a personal residence which holds no more than 1,100 gallons of home heating oil which is used consumptively at the premises where the tank is located.

"Holiday" when used with respect to underground storage tank coating or clading means a pinhole or void in a protective coating or clading.

"Hydraulic lift tank" means an underground storage tank which holds hydraulic fluid to operate lifts, elevators, and other similar equipment.

"Independent testing organization" means an organization which tests products or systems for compliance with voluntary consensus standards. To be acceptable as an independent testing organization, the organization must not be owned or controlled by any client, industrial organization, or any other person or institution with a financial interest in the product or system being tested. For an organization to certify, list, or label products or systems in compliance with voluntary consensus standards, it shall maintain formal periodic inspections of production of products or systems to ensure that a listed, certified or labeled product or system continues to meet the appropriate standards.

"Independent third party" means independent testing organizations, consulting firms, test laboratories, not-for-profit research organizations and educational institutions with no financial interest in the matters under consideration. An independent third party must not be owned or controlled by any client, industrial organization, or any other institution with a financial interest in the matter under consideration.

"Integral secondary containment" means a secondary containment system manufactured as part of the underground storage tank.

"Interstitial space" means the space between the primary and secondary containment systems.

"Liquid asphalt tank" means an underground storage tank which contains steam-refined asphalts.

"Liquefied petroleum gas tank" means an underground storage tank which contains normal butane, isobutane, propane, or butylene (including isomers) or mixtures composed predominantly thereof in liquid or gaseous state having a vapor pressure in excess of 40 pounds per square inch absolute at a temperature of 100 degrees Fahrenheit.

"Manufacturer" means any business which produces any item discussed in these regulations.

"Membrane liner" means any membrane sheet material used in a secondary containment system. A membrane liner shall be compatible with the substance stored.

"Membrane liner fabricator" means any company which converts a membrane liner into a system for secondary containment.

"Membrane manufacturer" means any company which processes the constituent polymers into membrane sheeting from which the membrane liner is fabricated into a system for secondary containment.

"Motor vehicle" means a self-propelled device by which any person or property may be propelled, moved, or drawn.

"Motor vehicle fuel tank" means an underground storage tank that contains a product which is intended to be used primarily to fuel motor vehicles or engines.

"New underground storage tank" means any underground storage tank subject to this chapter which is installed after the effective date of this chapter as amended August 9, 1991, or which complies with the requirements of Article 3 of this chapter as amended August 9, 1991; or which was installed after January 1, 1984, and before the effective date of this chapter as amended August 9, 1991, pursuant to a permit issued by the local agency implementing the provisions of Chapter 6.7 of Division 20 of the Health and Safety Code relating to new underground storage tanks.

"Non-volumetric test" means a tank integrity test method that ascertains the physical integrity of an underground storage tank through review and consideration of circumstances and physical phenomena internal or external to the tank.

"Perennial ground water" means ground water that is present throughout the year.

"Petroleum" means petroleum including crude oil, or any fraction thereof, which is liquid at standard conditions of temperature and pressure, which means at 60 degrees Fahrenheit and 14.7 pounds per square inch absolute.

"Pipeline leak detector" means a continuous monitoring system for underground piping capable of detecting at any pressure a leak rate equivalent to a specified leak rate and pressure with a probability of detection of 95 percent or greater and a probability of false alarm of 5 percent or less.

"Probability of detection" means the likelihood, expressed as a percentage, that a test method will correctly identify a leaking underground storage tank.

"Probability of false alarm" means the likelihood, expressed as a percentage, that a test method will incorrectly identify a "tight" tank as a leaking underground storage tank.

"Qualitative release detection method" means a method which detects the presence of a hazardous substance or suitable tracer outside the underground storage tank being tested.

"Quantitative release detection method" means a method which determines the integrity of an underground storage tank by measuring a release rate or by determining if a release exceeds a specific rate.

"Release detection method" means a method used to determine whether a release of a hazardous substance has occurred from an underground tank system into the environment or into the interstitial space between an underground tank system and its secondary containment.

"Septic tank" means an underground storage tank designed and used to receive and process biological waste and storage.

"Substantially beneath the surface of the ground" means that at least 10 percent of the underground tank system volume, including the volume of any connected piping, is below the ground surface or enclosed below earthen materials.

"Sump," "pit," "pond," or "lagoon" means a depression in the ground which lacks independent structural integrity and depends on surrounding earthen material for structural support of fluid containment.

"Tank integrity test" means a test method that can ascertain the physical integrity of any underground storage tank. The term includes only test methods which are able to detect a leak of 0.1 gph with a probability of detection of at least 95 percent and a probability of false alarm of 5 percent or less. The test method may be either volumetric or non–volumetric in nature. A leak rate is reported using a volumetric test method, whereas, a non–volumetric test method reports whether or not a substance or physical phenomenon is detected which may indicate the presence of a leak.

"Unauthorized release" as defined in Chapter 6.7 of Division 20 of the Health and Safety Code does not include intentional withdrawals of hazardous substances for the purpose of legitimate sale, use, or disposal.

"Volumetric test" means a tank integrity test method that ascertains the physical integrity of any underground storage tank through review and comparison of tank volume.

"Voluntary consensus standards" means standards that shall be developed after all persons with a direct and material interest have had a right to express a viewpoint and, if dissatisfied, to appeal at any point (a partial list of the organizations that adopt voluntary consensus standards are shown in Appendix I, Table B).

"Wastewater treatment tank" means an underground storage tank located inside a public or private wastewater treatment facility. The term includes untreated wastewater holding tanks, oil water separators, clarifiers, sludge holding tanks, filtration tanks, and clarified water tanks that do not continuously contain hazardous substances.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281, 25282 and 25283, Health and Safety Code; 40 CFR 280.10.

HISTORY

1. Renumbering and amendment of former section 2611 to section 2621 and renumbering and amendment of former 2621 to section 2611 filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2620. General Intent, Content, Applicability and Implementation.

(a) The regulations in this chapter are intended to protect waters of the State from discharges of hazardous substances from underground storage tanks. These regulations establish construction standards for new underground storage tanks; establish separate monitoring standards for new and existing underground storage tanks; establish uniform standards for unauthorized release reporting, and for repair, upgrade, and closure of underground storage tanks; and specify variance request procedures.

(b) Owners and operators of one or more underground storage tanks storing hazardous substances shall comply with these regulations except as otherwise specifically provided herein. If the operator of the underground storage tank is not the owner, then the owner shall enter into a written contract with the operator requiring the operator to monitor the underground storage tank; maintain appropriate records; and implement reporting procedures as required by any applicable permit. Both the owner and operator are responsible for assuring that the underground tank system is repaired or upgraded in accordance with Article 6, or closed in accordance with Article 7, of these regulations as appropriate.

(c) Counties shall implement the regulations in this chapter within both the incorporated and unincorporated areas of the county through the issuance of underground storage tank operating permits to underground storage tank owners. A city may, by ordinance, assume the responsibility for implementing the provisions of this chapter within its boundaries in accordance with section 25283 of the Health and Safety Code. Local agencies shall issue an operating permit for each underground storage tank, for several underground storage tanks, or for each facility, as appropriate, within their jurisdiction.

(d) Owners and operators of underground storage tanks subject to these regulations must comply with the construction and monitoring standards of Article 3 (new underground storage tanks) or the monitoring standards of Article 4 (existing underground storage tanks) of this chapter. However, owners of existing underground storage tanks which meet the construction and monitoring standards of Article 3 of this chapter may be issued operating permits pursuant to the standards of Article 3 in lieu of the standards of Article 4 of this chapter. In addition, owners of underground storage tanks subject to this chapter must comply with the release reporting requirements of Article 5 of this chapter, the repair and upgrade requirements of Article 6 of this chapter, the closure requirements of Article 7 of this chapter, and the underground storage tank operating permit application requirements of Article 10 of this chapter.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25283, 25284, 25299.1 and 25299.3, Health and Safety Code; 40 CFR 280.

HISTORY

1. New subchapter 16 (sections 2610–2714, not consecutive) filed 8–13–85; effective upon filing pursuant to Government Code section 11346.2(d) (Register 85, No. 33). For history of former subchapter 16, see Register 73, Nos. 24 and 6.
2. Renumbering and amendment of former section 2620 to section 2610 and renumbering and amendment of former 2610 to section 2620 filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
3. Editorial correction of printing errors in HISTORY 2. (Register 92, No. 43).

§ 23–2621. Exemptions.

(a) The term "underground storage tank" does not include any of the following:

(1) A farm tank.

(2) A heating oil tank.

(3) Hydraulic lift tanks with a capacity of less than 110 gallons.

(4) A liquefied petroleum gas tank.

(5) A liquid asphalt tank.

(6) A septic tank.

(7) A sump, pit, pond, or lagoon.

(8) A wastewater treatment tank except a tank which is part of an underground storage tank system.

(9) A pipeline located in a refinery or in an oil field.

(10) Tanks and catch basins designed for storm water collection.

(11) Tanks containing radioactive material that are regulated by other federal, state or local agency such as spent fuel pools, radioactive waste storage tanks, and similar tanks.

(12) An emergency containment tank kept emptied to receive accidental spills and approved for such use by the appropriate local agency.

(13) Drums located in basements which contain 55 gallons or less of material.

(14) Underground storage tanks containing hazardous wastes as defined in Section 25316 of the Health and Safety Code if the person owning or operating the underground storage tank has been issued a hazardous waste facilities permit for the underground storage tank by the Department of Health Services pursuant to Section 25200 of the Health and Safety Code or granted interim status under Section 25200.5 of the Health and Safety Code.

(b) Sumps which are a part of a monitoring system required under Article 3 of this chapter are considered part of the secondary containment or leak detection system of the primary containment and are required to meet the appropriate construction criteria.

(c) The owner of a farm or heating oil tank or any other tank which is excluded from regulation as an underground storage tank by virtue of its use shall within 120 days after change in or discontinuance of the use which provided the exclusion:

(1) Apply for and promptly obtain a valid operating permit; or

(2) Close the tank in accordance with Article 7 of these regulations.

Resumption of a use which justifies an exclusion from regulation within 120 days after change or discontinuation of the use which provided the exclusion will reactivate the exclusion.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281 and 25299.1, Health and Safety Code; 40 CFR 280.10, 280.12.

HISTORY

1. Renumbering and amendment of former section 2621 to section 2611 and renumbering and amendment of former 2611 of section 2621 filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2630. General Applicability of Article.

(a) The standards in this article apply to owners of new underground storage tanks. Underground storage tanks installed between January 1, 1984, and the effective date of these amendments, August 9, 1991, may be deemed to be in compliance with the standards in this article if they were installed in accordance with Federal and State standards that existed at the time of installation. However, the requirements in Article 6 must be complied with if applicable.

(b) Sections 2631 and 2632 of this article specify construction and monitoring standards for all new underground storage tanks. New underground storage tanks that only store motor vehicle fuels may be constructed and monitored pursuant to the standards specified in sections 2633 and 2634 of this article in lieu of those specified in sections 2631 and 2632 of this article. However, if the construction standards in section 2633 of this article are used, then the monitoring standards of section 2634 of this article shall also be used.

(c) All new underground storage tanks, piping, and secondary containment systems shall comply with section 2635 of this article.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281 and 25291, Health and Safety Code; 40 CFR 280.20.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2631. Construction Standards for New Underground Storage Tanks.

(a) All new underground storage tanks including associated piping used for the storage of hazardous substances shall be required to have primary and secondary levels of containment. Secondary containment can be manufactured as an integral part of the primary containment or it can be constructed as a separate containment system.

(b) All primary containment including any integral secondary containment system, shall be designed and constructed according to an industry code or engineering standard approved by an independent testing organization for the applicable use. All other components such as special accessories, fittings, coatings or linings, monitoring systems and level controls used to form the underground storage tank system shall bear an approval from an independent testing organization. This requirement shall become effective on July 1, 1991 for underground storage tanks, January 1, 1992 for piping, and July 1, 1992 for all other components. The exterior surface of underground storage tanks shall bear a marking, code stamp, or label showing the following minimum information:

(1) Engineering standard used;
(2) Nominal diameter in feet;
(3) Nominal capacity in gallons;
(4) Degree of Secondary Containment;
(5) Useable capacity in gallons;
(6) Design pressure in psig;
(7) Maximum operating temperature in degrees Fahrenheit;
(8) Construction materials;
(9) Year manufactured; and
(10) Manufacturer.

(c) A primary containment system with or without an integral secondary containment system shall have wear plates (striker plates) installed, center to center, below all accessible openings. The plates shall be made of steel or other appropriate material if steel is not compatible with the hazardous substance stored. The width of the plate shall be at least eight inches on each side, or shall be equal to the area of the accessible opening or guide tube, whichever is larger. The thickness of the steel plate shall be at least 1/8 inch and those made of other materials shall be of sufficient thickness to provide equivalent protection. The plate, if under 1/4 inch thick, shall be rolled to the contours of the underground storage tank and all plates shall be bonded or tack welded in place.

(d) A secondary containment system such as vaults, shall be designed and constructed according to an engineering specification approved by a state licensed engineer or according to a nationally recognized industry code or engineering standard. The engineering specification shall include the construction procedures. Materials used to construct the secondary containment system shall have sufficient thickness, density, and corrosion resistance to prevent structural weakening or damage to the secondary containment system as a result of contact with any released hazardous substance. The following requirements apply to all secondary containment systems:

(1) The secondary containment system shall be constructed to provide at least the following volumes:

(A) 100 percent of the usable capacity of the primary containment system where only one primary container is within the secondary containment system.

(B) In the case of multiple primary containers within a single secondary containment system, the secondary containment system shall be large enough to contain 150 percent of the volume of the largest primary container within it, or 10 percent of the aggregate internal volume of all primary containers within the secondary containment system, whichever is greater. When all primary containers are completely enclosed within the secondary containment system, the restrictions of this subsection do not apply.

(2) If the secondary containment system is open to rainfall, it shall be constructed to accommodate the volume of precipitation which could enter the secondary containment system during a 24- hour, 25-year storm in addition to the volume required in subsection (d)(1) of this section.

(3) If backfill material is placed in the secondary containment system, the volumetric requirements for the pore space shall be equal to the requirement in subsection (d)(1) of this section. The available pore space in the secondary containment system backfill shall be determined using standard engineering methods and safety factors. The specific retention and specific yield of the backfill material, the location of any primary container within the secondary containment, and the proposed method of operation for the secondary containment system shall be considered in determining the available pore space.

(4) The secondary containment system shall be equipped with a collection system to accumulate, temporarily store, and permit removal of any liquid within the system.

(5) The floor of the secondary containment system shall be constructed on a firm base and, if necessary for monitoring, shall be sloped to a collection sump. One or more access casings shall be installed in the sump and sized to allow removal of collected liquid. The access casing shall extend to the ground surface, be perforated in the region of the sump, and be covered with a locked waterproof cap or enclosed in a surface security structure that will protect the access casing(s) from entry of surface water, accidental damage, unauthorized access, and vandalism. A facility with locked gates will satisfy the requirements for protection against unauthorized access and vandalism. The casing shall have sufficient thickness to withstand all anticipated stresses with appropriate engineering safety factors and constructed of materials that will not be structurally weakened by the stored hazardous substance and will not donate, capture, or mask constituents for which analyses will be made.

(6) Secondary containment systems utilizing membrane liners shall be certified by an independent testing organization. A membrane liner shall not contain any primary nutrients or food–like substances attractive to rodents and must meet the requirements in Table 3.1 after 30–day immersion in the stored hazardous substance.

Table 3.1
Standards for Membrane Liners

	Some Acceptable Test Methods (See Appendix I, Table A)		
Property	*Unsupported Liners*	*Supported Liners*	*Requirement*
(A) Tensile strength Tensile strength at yield Tensile strength at break	ASTM D638	ASTM D751 Procedure B (Cut Strip Method)	>300 lbs/in of width >200 lbs/in of width
(B) Permeability	ASTM E96	ASTM E96	<0.65 gram/meter^2–hr
(C) Seam strength	ASTM D413	ASTM D751	= Parent material
(D) Solubility	ASTM D471	ASTM D471	<0.10% by weight
(E) Puncture		FTMS 101C Method 2031	350 lbs.
	FTMS 101C Method 2065		80 lbs.
(F) Tear		ASTM D751	125 lbs.
	ASTM D1004 DIEC		50 lbs.

(7) A membrane liner, if used, shall be installed under the direct supervision of a representative of the membrane liner fabricator or a contractor certified by such fabricator.

(8) The excavation base and walls for a membrane liner shall be prepared to the membrane liner fabricator's specifications and shall be firm, smooth, and free of any sharp objects or protrusions.

(e) Laminated, coated, or clad materials shall be considered a single wall and do not fulfill the requirements of both primary and secondary containment.

(f) Underground storage tanks with integral secondary containment systems, which satisfy the construction standards of subsection (b) of this section, fulfill the volumetric requirements for secondary containment specified in subsection (d)(1) of this section.

(g) Underground storage tanks with secondary containment systems shall be so designed and installed that any loss of hazardous substance from the primary containment will be detected by an interstitial monitoring device or method.

(h) An underground storage tank which is designed with an integral secondary containment system shall provide 100 percent secondary containment unless it is equipped with the overfill prevention system in accordance with section 2635(c)(2)(C) of this Article. In this case the top portion of the tank, no greater than two feet wide along the length of the tank, may be single–walled.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281 and 25291, Health and Safety Code; 40 CFR 280.20.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2632. Monitoring Requirements, Initial Response, and Response Plan for New Underground Storage Tanks.

(a) This section is applicable only to those underground storage tanks constructed pursuant to the standards of section 2631 of this article.

(b) The owners or operators of underground storage tanks subject to this section shall implement a monitoring program approved by the local agency and specified in the underground storage tank operating permit. The program shall utilize interstitial space monitoring as described in subsection (c) of this section and shall include the items listed in subsection (e) of this section.

(c) Monitoring of the interstitial space shall utilize either visual monitoring of the primary containment system as described in subsection (c)(1) of this section or one or more of the methods listed in subsection (c)(2) of this section.

(1) A program which relies on the visual monitoring of the primary containment system shall incorporate all of the following:

(A) All exterior surfaces of the underground storage tanks and the surface of the floor directly beneath the underground storage tanks shall be capable of being monitored by direct viewing.

(B) Visual inspections shall be performed daily, except on weekends and recognized state and/or federal holidays. Inspections may be more frequent if required by the local agency or the local agency may reduce the frequency of visual monitoring at facilities where personnel are not normally present and inputs to and withdrawals from the underground storage tanks are very infrequent. In these instances, the minimum frequency of visual inspection shall be no less than once per week and the inspection schedule shall take into account the minimum anticipated time during which the secondary containment system is capable of containing any unauthorized release and the maximum length of time any hazardous substance released from the primary containment system will remain observable on the surface of the secondary containment system. The inspection schedule shall be such that inspections will occur on a routine basis when the liquid level in the underground storage tanks is at its highest. The inspection frequency shall be such that any unauthorized release will remain observable on the exterior of or the surface immediately beneath the underground storage tanks between visual inspections. The evaluation of how long the hazardous substance remains observable shall consider the volatility of the hazardous substance and the porosity and slope of the surface immediately beneath the underground storage tanks.

(C) The liquid level in the underground storage tanks shall be recorded at the time of each inspection.

(D) The observation of any liquid around or beneath an underground storage tank shall require the owner or operator to undertake the following action or actions:

1.Conduct an appropriate laboratory or field analysis of the observed liquid. If the liquid is a hazardous substance, the owner or operator shall proceed with the actions indicated in subsections 2. and 3. below.

2. Conduct an appropriate tank integrity test; and

3. If a leak is confirmed, immediately remove all hazardous substances from the underground storage tank and the secondary containment system.

(2) A program which relies on detecting the hazardous substance in the interstitial space shall utilize one or more of the methods provided in Table 3.2 of this article. The following requirements shall apply when appropriate:

(A) The interstitial space of the underground storage tank shall be monitored using a continuous monitoring system.

(B) The continuous monitoring system shall be connected to an audible and visual alarm system as approved by the local agency.

(C) For methods of monitoring where the presence of the hazardous substance is not determined directly, for example, where liquid level measurements are used as the basis for determination, the monitoring program shall specify the proposed method(s) for determining the presence or absence of the hazardous substance in the interstitial space if the indirect methods indicate a possible unauthorized release.

(d) Underground piping with secondary containment shall be equipped and monitored as follows:

(1) The secondary containment system shall be equipped with a continuous monitoring system which is connected to an audible and visual alarm system, and

(2) Automatic line leak detectors shall be installed on underground pressurized piping and shall be capable of detecting a three gallon per hour leak rate at 10 psi within 1 hour with a probability of detection of at least 95 percent and a probability of false alarm no greater than 5 percent. Compliance with these standards shall be certified in accordance with section 2643(g) of these regulations.

(3) Other monitoring methods may be used in lieu of the requirement in subsection 2 above if it is demonstrated to the satisfaction of the local agency that the alternate method is as effective as the methods otherwise required by this section. A continuous monitoring system, in subsection 1 above, which also shuts down the pump in addition to activating the alarm system, satisfies the automatic line leak detector requirement in subsection 2.

(e) All monitoring programs shall include the following:

(1) A written routine monitoring procedure which establishes:

(A) The frequency of performing the monitoring method;

(B) The methods and equipment to be used for performing the monitoring;

(C) The location(s) from which where the monitoring will be performed;

(D) The name(s) and title(s) of the person(s) responsible for performing the monitoring and/or maintaining the equipment;

(E) The reporting format;

(F) The preventive maintenance schedule for the monitoring equipment. The maintenance schedule shall be in accordance with the manufacturer's instructions, and;

(G) A description of the training needed for the operation of both the tank system and the monitoring equipment.

(2) A response plan which demonstrates, to the satisfaction of the local agency, that any unauthorized release will be removed from the secondary containment system within the time consistent with the ability of the secondary containment system to contain the hazardous substance, but not more than 30 calendar days. The response plan shall include, but is not limited to, the following:

(A) A description of the proposed methods and equipment to be used for removing and properly disposing of any hazardous substances, including the location and availability of the required equipment if not permanently on-site, and an equipment maintenance schedule for the equipment located on-site.

(B) The name(s) and title(s) of the person(s) responsible for authorizing any work necessary under the response plan.

Table 3.2

Methods of Monitoring for Hazardous

Substances in the Interstitial Space of an Underground Storage Tank System

		Methods of Monitoring			
Condition of the Secondary System[1]	*Type of Substance Stored*	*Liquid Level Indicator*[2]	*Hazardous Substance Sensor*[3]	*Vapor Monitor*	*Pressure or Vacuum Loss Detector*[4]
Dry	Volatile	X	X	X	X
Dry	Nonvolatile	X	X		X
Wet	Volatile	X	X		X
Wet	Nonvolatile	X	X		X

[1]A "dry" system does not contain liquid within the secondary containment during normal operating conditions while a "wet" system does.

[2]Includes continuously operated mechanical or electronic devices.

[3]Includes either qualitative or quantitative determinations of the presence of the hazardous substance.

[4]Detects changes in pressure or vacuum in the interstitial space of an underground storage tank with secondary containment.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281 and 25291, Health and Safety Code; 40 CFR 280.43.

HISTORY

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2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2633. Alternate Construction Requirements for New Motor Vehicle Fuel Underground Storage Tanks.

(a) This section specifies alternate construction requirements for new underground storage tanks which only contain motor vehicle fuels. Owners of new underground storage tanks which only contain motor vehicle fuels may comply with this section in lieu of section 2631 of this article. If this section is used, then the monitoring requirements specified in section 2634 shall be used in lieu of those specified in section 2632 of this article.

(b) Underground storage tanks used for storage of motor vehicle fuel and constructed under this section shall be composed of fiberglass reinforced plastic, cathodically protected steel, or steel clad with fiberglass reinforced plastic. These tanks shall be installed in conjunction with the leak interception and detection system described in subsections (d) through (g) of this section. The primary containment system shall meet the requirements described in sections 2631(b) and 2631(c) of this article.

(c) Underground storage tanks used for storage of motor vehicle fuel that are constructed of materials other than those specified in subsection (b) of this section shall be subject to the requirements of sections 2631 and 2632 of this article.

(d) The owner of an underground storage tank shall demonstrate to the satisfaction of the local agency that the leak interception and detection system used is capable of detecting a release before it can escape from the containment system.

(e) The floor of any leak interception and detection system shall be constructed on a firm base and sloped to a collection sump. Methods of construction for the leak interception and detection system utilizing membrane liners shall comply with the requirement of section 2631(d)(6) of this article.

(f) Access casings shall be installed in the collection sump of any secondary containment system with backfill in the interstitial space. The access casing shall be:

(1) Designed and installed to allow the liquid to flow into the casing;

(2) Sized to allow efficient removal of collected liquid and to withstand all anticipated applied stresses using appropriate engineering safety factors;

(3) Constructed of materials that will not be structurally weakened by the stored hazardous substances nor donate, capture, nor mask constituents for which analyses will be made;

(4) Screened along the entire vertical zone of permeable material which may be installed between the primary container and the leak interception and detection system;

(5) Capable of precluding leakage of any hazardous substance from the casing to areas outside of the leak interception and detection system;

(6) Extended to the ground surface and covered with a locked waterproof cap or enclosed in a surface security structure that will protect the access casing(s) from entry of surface water, accidental damage, unauthorized access, and vandalism. A facility with locked gates will satisfy the requirements for protection against unauthorized access and vandalism; and

(7) Capable of meeting requirements of local well permitting agencies.

(g) The leak interception and detection system shall prevent the contact of any leaked hazardous substance with ground water. At a minimum, the leak interception and detection system shall be above the highest anticipated ground water elevation. Proof that the leak interception and detection system will protect ground water must be demonstrated by the owner of the underground storage tank to the satisfaction of the local agency. In determining whether the leak interception and detection system will adequately protect ground water, the local agency shall consider, at a minimum, the following:

(1) The containment volume of the leak interception and detection system;

(2) The maximum leak which could go undetected under the monitoring method required in section 2634 of this article and the maximum period during which the leak will go undetected;

(3) The frequency and accuracy of the proposed method of monitoring the leak interception and detection system;

(4) The depth from the bottom of the leak interception and detection system to the highest anticipated level of ground water;

(5) The nature of the unsaturated soils under the leak interception and detection system and their ability to absorb contaminants or to allow movement of contaminants;

(6) The effect of any precipitation or subsurface infiltration on the movement of any leak of hazardous substance and the available volume of the leak interception and detection system; and

(7) The nature and timing of the response plan required by section 2634 of this article to clean up any hazardous substances which have been discharged from the primary container.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281 and 25291, Health and Safety Code; 40 CFR 280.20.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2634. Monitoring and Response Plan Standards for New Motor Vehicle Fuel Underground Storage Tanks Constructed Pursuant to Section 2633.

(a) Motor vehicle fuel tanks constructed pursuant to section 2633 of this article shall be monitored as follows:

(1) The leak interception and detection system shall be monitored pursuant to subsection (b) of this section;

(2) The motor vehicle fuel inventory shall be reconciled according to the performance requirements in section 2646; and

(3) All underground pressurized piping shall be tested in accordance with the requirements of section 2635(b) and monitored in accordance with the requirements of section 2632(d).

(b) Monitoring programs for the leak interception and detection system shall meet the following requirements:

(1) The leak interception and detection system shall detect any unauthorized release of the motor vehicle fuel collected utilizing one or more of the monitoring methods for volatile hazardous substances provided in Table 3.2 of this article. The following requirements shall apply as appropriate:

(A) Continuous monitoring systems shall be connected to an audible and visual alarm system approved by the local agency.

(B) Manual monitoring, if used, shall be performed daily, except on weekends and recognized state and/or federal holidays, but no less than once in any 72 hour period. Manual monitoring may be required on a more frequent basis as specified by the local agency.

(2) A written routine monitoring procedure shall be prepared and shall establish:

(A) The frequency of performing the monitoring;

(B) The methods and equipment to be used for performing the monitoring;

(C) The location(s) where the monitoring will be performed;

(D) The name(s) and title(s) of the person(s) responsible for performing the monitoring and/or maintaining the equipment;

(E) The reporting format;

(F) The preventive maintenance schedule for the monitoring equipment. The maintenance schedule shall be in accordance with the manufacturer's instructions; and

(G) A description of the training needed for the operation of both the tank system and the monitoring equipment.

(3) For methods of monitoring where the presence of the hazardous substance is not determined directly, for example, where liquid level measurements are used as the basis for determination (i.e., liquid level measurements), the monitoring program shall specify the proposed method(s) for determining the presence or absence of the hazardous substance if the indirect method indicates a possible unauthorized release of motor vehicle fuel.

(c) A response plan for an unauthorized release shall be developed prior to the underground tank system being put into service. If the leak interception and detection system meets the volumetric requirement of subsection 2631(d) of this article, the local agency shall require the owner to develop a plan pursuant to the requirements of subsection 2632(e)(2) of this article. If the leak interception and detection system does not meet the volumetric requirements of subsection 2631(d), the response plan shall consider the following:

(1) The volume of the leak interception and detection system in relation to the volume of the primary container;

(2) The amount of time the leak interception and detection system must provide containment in relation to the period of time between detection of an unauthorized release and cleanup of the leaked material;

(3) The depth from the bottom of the leak interception and detection system to the highest anticipated level of ground water;

(4) The nature of the unsaturated soils under the leak interception and detection system and their ability to absorb contaminants or to allow movement of contaminants; and

(5) The methods and scheduling for removing all of the hazardous substances which may have been discharged from the primary container and are located in the unsaturated soils between the primary container and ground water, including the leak interception and detection system sump.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281, 25291 and 25292, Health and Safety Code; 40 CFR 280.41.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2635. Installation and Testing Requirements for New Underground Storage Tanks and Piping.

(a) Primary and secondary containment systems shall be designed, constructed, tested, and certified to comply, as applicable, with all of the following requirements:

(1) All underground storage tanks shall be tested, at the factory before being transported, in accordance with the applicable sections of the industry code or engineering standard under which they are built.

(2) The outer surface of underground storage tanks constructed of steel shall be protected from corrosion as follows, except that primary containment systems installed in a secondary containment system and not backfilled do not need cathodic protection:

(A) Field installed cathodic protection systems shall be designed and certified as adequate by a corrosion specialist. The cathodic protection systems shall be tested under the direction of a cathodic protection tester within six months of installation and at least every three years thereafter. The criteria that are used to determine that cathodic protection is adequate as required by this section must be in accordance with a code of practice developed in accordance with voluntary consensus standards. Impressed current cathodic protection systems shall also be inspected to ensure that they are in proper working order not less than every 60 calendar days by a cathodic protection tester.

(B) Underground storage tanks protected with glass fiber reinforced plastic coatings, composites, or equivalent non-metallic exterior coatings or coverings, including coating/sacrificial anode systems, shall be tested at the job site using an electric resistance holiday detector. All holidays detected shall be repaired and checked by a factory authorized repair service prior to tank installation. During and after tank installation, care shall be taken to prevent damage to the protective coating or cladding. Pre-engineered corrosion protection systems with sacrificial anodes shall be checked once every three years in accordance with the manufacturer's instructions.

(3) Before installation, the underground storage tank shall be tested for tightness at the installation site in accordance with the manufacturer's written guidelines. If there are no guidelines, the primary and secondary containment shall be tested for tightness with air pressure at not less than 3 pounds per square–inch (20.68 k Pa) and not more than 5 pounds per square–inch (34.48 k Pa). In lieu of the above, an equivalent differential pressure test, expressed in inches of mercury vacuum, in the interstitial space of the secondary containment is acceptable. The pressure (or vacuum in the interstitial space) shall be maintained for a minimum of 30 minutes to determine if the tank is tight. If a tank fails the test, as evidenced by soap bubbles, or water droplets, installation shall be suspended until the tank is replaced, remanufactured or repaired by a factory authorized repair service and passes a retest.

(4) All other secondary containment systems shall pass a post– installation test which meets the approval of the local agency.

(5) After being installed but before the underground storage tank is placed in service it shall receive a tank integrity test to ensure that no damage occurred during installation. The tank integrity test is not required if the tank is equipped with an interstitial monitor certified to meet the performance standards of a "tank integrity test," as defined in section 2611, in accordance with section 2643(g) of these regulations.

(6) All underground storage tanks shall be installed according to a code of practice developed in accordance with voluntary consensus standards and the manufacturer's written installation instructions. The owner or operator shall certify that the underground storage tank is installed in accordance with the above requirements as required by subsection (e) of this section.

(7) All underground storage tanks subject to flotation shall be anchored using methods specified by the manufacturer or, if none exist, best engineering judgment.

(b) All underground piping, if in direct contact with backfill material, shall be protected against corrosion. Piping constructed of fiberglass reinforced plastic, steel with cathodic protection, or steel isolated from direct contact with backfill, fulfills this corrosion protection requirement. Cathodic protection must meet the requirements in subsection (a)(2) of this section. Underground piping shall meet all of the following requirements:

(1) All underground primary piping in contact with hazardous substances under normal operating conditions shall be installed inside a secondary containment system which may be a secondary pipe, or a lined trench. All secondary containment systems shall be sloped so that all releases will flow to a collection sump located at the low point of the underground piping.

(2) Primary piping and secondary containment systems shall be installed in accordance with a code of practice developed in accordance with voluntary consensus standards. The owner or operator shall certify that the piping is installed in accordance with the above requirements as required by subsection (e) of this section.

(3) If a lined trench system is used as part of a secondary containment system, it shall be designed and constructed according to a code of practice or engineering standard approved by a state licensed engineer. The following requirements shall also apply:

(A) All trench materials shall be compatible with the substance stored and certified by an independent testing organization for their compatibility or adequacy of the trench design, construction, and application.

(B) The trench shall be covered and shall be capable of supporting any expected vehicular traffic.

(4) All new primary piping and secondary containment systems shall be tested for tightness after the installation in accordance with the manufacturer's guidelines. As a minimum, the primary piping shall be tested for tightness hydrostatically at 150 percent of designed and operating pressure or pneumatically at 110 percent of design pressure. If the calculated test pressure is less than 40 psi, 40 psi shall be used as the test pressure. The pressure shall be maintained for a minimum of 30 minutes and all joints shall be soap tested. A failed test, as evidenced by presence of bubbles, shall require appropriate repairs and a retest. If there are no manufacturer's guidelines, secondary containment systems shall be tested using an applicable method specified in an industry code or engineering standard.

(5) Underground pressurized piping which meets all of the following requirements satisfies the annual tightness test requirement specified in subsection 25291(f) of the Health and Safety Code:

(A) The secondary containment system is equipped with a continuous monitoring system. The leak detection device can be located at the pump sump if the piping slopes back to this point.

(B) A continuous monitoring system is connected to an audible and visual alarm system and the pumping system.

(C) A continuous monitor shuts down the pump and activates the alarm system when a release is detected.

(D) The pumping system shuts down automatically if the continuous monitoring system fails or is disconnected. This requirement does not apply to the emergency generator system if the site is manned.

(6) A secondary containment system is not required for vent piping or tank riser piping provided the primary containment system is equipped with an overfill prevention system meeting the requirements specified in subsections (c)(2)(B) or (C) of this section. Vapor recovery piping is also exempt from the secondary containment requirement if designed not to carry product back to the underground storage tank.

(7) Secondary containment is not required for suction piping if such piping is designed and installed in accordance with the following requirements:

(A) The below–grade piping operates at less than atmospheric pressure (suction);

(B) The below–grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(C) No valves or pumps are installed in the suction line below–grade;

(D) An inspection method is provided which readily demonstrates compliance with subsections (A)–(C) immediately above.

(c) All underground storage tanks shall be equipped with a spill container and an overfill prevention system as follows:

(1) The spill container shall collect any hazardous substances spilled during tank filling operations to prevent the hazardous substance from entering the subsurface environment. The spill container shall meet the following requirements:

(A) The exterior wall must be protected from galvanic corrosion if made of metal.

(B) It must have at least a minimum capacity of five gallons (19 liters).

(C) It must have a spring–loaded drain valve which allows drainage of the collected spill into the primary container.

(2) The overfill prevention system shall not allow for manual override and shall meet one of the following requirements. It must either:

(A) Alert the transfer operator when the tank is 90 percent full by restricting the flow into the tank or triggering an audible and visual alarm; or

(B) Restrict delivery of flow to the tank at least 30 minutes prior to tank overfill, provided the restriction occurs when the tank is filled to no more than 95 percent of capacity, and provide audible alarm sounds at least five minutes prior to overfill; or

(C) Provide positive shut–off of flow to the tank when the tank is filled to no more than 95 percent full.

(3) Owners and operators must use care to prevent releases due to spilling or overfilling. The owner and operator must ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.

(4) The local agency may waive the requirement for overfill prevention equipment where the tank inlet exists in an observable area and the spill container is adequate to collect any overfill.

(d) Secondary containment systems including leak interception and detection systems installed pursuant to section 2633 of this article shall comply with all of the following:

(1) The secondary containment system shall, at a minimum, encompass the area within the system of vertical planes surrounding the exterior of the primary containment system. If backfill is placed between the primary and secondary containment systems, an evaluation shall be made of the maximum lateral spread of a point leak from the primary containment system over the vertical distance between the primary and secondary containment systems. The secondary containment system shall extend an additional distance beyond the vertical planes described above equal to the radius of the lateral spread plus 1 foot.

(2) The secondary containment system must be capable of precluding the inflow of the highest ground water anticipated into the interstitial space during the life of the underground storage tank.

(3) If the interstitial space is backfilled, the backfill material shall not preclude the vertical movement of leakage from any part of the primary containment system.

(4) The secondary containment system with backfill material shall be designed and constructed to promote gravity drainage of an unauthorized release of hazardous substances from any part of the primary containment system to the monitoring location(s).

(5) Two or more primary containment systems shall not utilize the same secondary containment system if the primary containment system stores materials that in combination may cause a fire or explosion, or the production of a flammable, toxic, or poisonous gas, or the deterioration of any part of a primary or secondary containment system.

(6) Drainage of liquid from within a secondary containment system shall be controlled in a manner approved by the local agency so as to prevent hazardous materials from being discharged into the environment. The liquid shall be analyzed to determine the presence of any of the hazardous substance(s) stored in the primary containment system prior to initial removal, and monthly thereafter, for any continuous discharge (removal) to determine the appropriate method for final disposal. The liquid shall be sampled and analyzed immediately upon any indication of an unauthorized release from the primary containment system.

(7) For primary containment systems installed completely beneath the ground surface, the original excavation for the secondary containment system shall have a water–tight cover which extends at least 1 foot beyond each boundary of the original excavation. This cover shall be asphalt, reinforced concrete, or equivalent material which is sloped to drainways leading away from the excavation. Access openings shall be constructed as water– tight as practical. Primary containment systems with integral secondary containment and open vaults are exempt from the requirements of this subsection.

(8) The actual location and orientation of the underground storage tanks and appurtenant piping systems shall be indicated on as–built drawings of the facility. Copies of all drawings, photographs, and plans shall be submitted to the local agency.

(e) Owners or their agents shall certify (see Appendix VI) that the installation of underground storage tanks and piping meets all of the following conditions:

(1) The installer has been adequately trained and certified by the tank and piping manufacturers;

(2) The installer has been certified or licensed by the Contractors State License Board;

(3) The underground storage tank, any primary piping, and any secondary containment system, was installed according to applicable voluntary consensus standards and any manufacturer's written installation instructions;

(4) All work listed in the manufacturer's installation checklist has been completed; and

(5) The installation has been inspected and approved by the local agency, or, if required by the local agency, inspected and certified by a registered professional engineer who has education and experience with underground storage tank system installations.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25281 and 25299, Health and Safety Code; 40 CFR 280.20, 280.40–280.45.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2640. General Applicability of Article.

(a) The requirements of this article apply to owners of nonexempt existing underground storage tanks.

(b) The requirements of this article apply during the following periods:

(1) Any operating period, including any period that the tank is empty as a result of withdrawal of all stored material prior to the planned input of additional hazardous substances;

(2) Any period in which hazardous substances are stored in the tank, and no filling or withdrawal is conducted; and

(3) Any period between cessation of hazardous material storage and actual completion of closure pursuant to Article 7 of this chapter, unless otherwise specified by local agency, pursuant to section 2671(b), for a temporary closure period.

(c) This article shall not apply to underground storage tanks that are installed and monitored in accordance with sections 2631 and 2632 or 2633 and 2634 of Article 3 of this chapter.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25292, Health and Safety Code; 40 CFR 280.40–280.42.

HISTORY

1. Amendment of article and section headings and NOTE, repealer of subsections (a)–(f), and adoption of subsections (a)–(c) filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2641. Monitoring Program Requirements.

(a) Owners of existing underground storage tanks subject to this article shall implement a monitoring program which is capable of detecting any unauthorized release from any portion of the underground storage tank system at the earliest possible opportunity, except for piping which is either exempt from the definition of underground storage tank pursuant to section 25281.5 of the Health and Safety Code, or is exempt from monitoring under subsection (b) of this section.

(b) Underground piping shall be exempt from the monitoring program if the local agency determines that the piping has been designed and constructed in accordance with the standards set forth in section 2635(b)(7) of this chapter.

(c) The monitoring program for all underground piping that operates at less than atmospheric pressure, unless it is exempt from monitoring under subsection (b) of this section, shall comply with section 2643(e) and shall include daily monitoring as described in Appendix II.

(d) The monitoring program shall include visual monitoring in accordance with section 2642 of this article for all portions of the underground storage tank system which is not exempt under this section. A portion of the underground storage tank shall be exempt from visual monitoring if the owner demonstrates to the satisfaction of the local agency that one or more of the following conditions apply to that portion:

(1) A portion of the underground storage tank is not accessible for direct viewing;

(2) Visual inspection of a portion of the underground storage tank would be hazardous or would require the use of extraordinary personal protection equipment other than normal protective equipment such as steel–toed shoes, hard hat, or ear protection; or

(3) The underground storage tank is located at a facility which is not staffed on a daily basis.

(e) The monitoring program shall include non–visual monitoring which must be implemented for all portions of the underground storage

tank which are exempt under subsection (d) of this section and for the underground storage tank during periods when visual monitoring required under subsection (d) of this section is not conducted. This non-visual monitoring shall include a quantitative release detection method as specified in section 2643 of this article or a qualitative release detection method as specified in section 2644 of this article or a combination of these methods as approved by the local agency.

(f) At a minimum, any non-visual monitoring shall include a quantitative release detection method for underground pressurized piping that complies with the performance requirements specified in section 2643(d)(1).

(g) The monitoring program must be approved by the local agency and as a minimum shall be in compliance with the requirements of this article and as specified in the underground storage tank operating permit. The local agency may require additional monitoring methods or increased monitoring frequencies as necessary to satisfy the objective in subsection (a) of this article. In deciding whether or not to approve a proposed monitoring program, or to require additional methods or frequencies of monitoring, the local agency shall consider the following factors:

(1) The volume and physical and chemical characteristics of the hazardous substance(s) stored in the underground storage tank;

(2) The compatibility of the stored hazardous substance(s) and any chemical reaction product(s) with the function of monitoring equipment or devices;

(3) The reliability and consistency of the proposed monitoring equipment and systems under site-specific conditions;

(4) The depth and quantity of ground water and the direction of ground water flow;

(5) The patterns of precipitation in the region and any ground water recharge which occurs as a result of precipitation;

(6) The existing quality of ground water in the area, including other sources of contamination and their cumulative impacts;

(7) The current and potential future uses (e.g., domestic, municipal, agricultural, industrial supply) of ground water in the area;

(8) The proximity and withdrawal rates of ground water users in the area;

(9) The type, homogeneity, and range of moisture content of the backfill material and native soils and their probable effects on contaminant migration and detection;

(10) The presence of contamination in the excavation zone or surrounding soils;

(11) The proximity of the underground storage tank to surface waters; and

(12) Additional hydrogeologic characteristics of the zone surrounding the underground storage tank.

(h) Owners shall repair or close in accordance with the requirements of Article 6, or 7, respectively, any underground storage tank for which an approved monitoring program is not promptly obtained.

(i) Equipment and devices used in implementing the monitoring program shall be installed, calibrated, operated, and maintained in accordance with manufacturer's instructions, including routine maintenance and service checks (at least once per calendar year) for operability or running condition. Written records shall be maintained as required in section 2712 of Article 10 of this chapter.

(j) When an unauthorized release is indicated during the installation of a release detection system, the owner or operator shall cease the installation process and comply with the release reporting requirements of Article 5 and shall replace, repair or close the underground storage tank in accordance with Article 3, 6 or 7 of this chapter.

(k) When implementation of the monitoring program indicates that an unauthorized release may have occurred, the owner shall comply with the release reporting requirements of Article 5 of this chapter and shall replace, repair, or close the underground storage tank in accordance with Article 3, 6, or 7 of this chapter.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25283, 25291 and 25292, Health and Safety Code; 40 CFR 280.40 and 280.41.

HISTORY

1. Editorial correction of printing errors in Tables 4.1 and 4.2 (Register 86, No. 23).
2. Change without regulatory effect of Table 4.1 (Register 86, No. 40).
3. Repealer and new section filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
4. Editorial correction of printing errors in HISTORY 3. (Register 92, No. 43).

§ 23-2642. Visual Monitoring.

(a) An owner who is required, pursuant to section 2641 of this article, to implement visual monitoring shall comply with all of the following requirements:

(1) All visible exterior surfaces of an underground storage tank, including any visible horizontal surface directly beneath the underground storage tank, shall be inspected at least daily by direct viewing. The inspection schedule shall be established such that some of the inspections are conducted when the liquid in the underground storage tank is at its highest level;

(2) A written statement of the routine monitoring procedure shall be available at the facility and the record shall include the frequency of visual inspections, the location(s) from which observations will be made, the name(s) and title(s) of the person(s) responsible for performing the observations and the reporting format;

(3) Written records shall be maintained according to section 2712 of Article 10 of this chapter and shall include recordation of the liquid level in the underground storage tank at the time of each inspection. These records shall also include a description of any sampling, analyses, and testing procedures conducted to satisfy subsection (b) of this section, including any minimum levels of detection used.

(b) The owner or operator shall undertake all of the following activities if any liquid around or beneath the underground storage tank is observed:

(1) Any and all action necessary to promptly determine if the observed liquid constitutes an unauthorized release shall be taken;

(2) Observed liquid shall be analyzed in the field or laboratory to determine if an unauthorized release has occurred; and

(3) The underground storage tank shall be tested utilizing a quantitative release detection method which complies with one or more of the performance standards set forth in section 2643 of this article.

(c) If the steps in subsection 2642(b) indicate that an unauthorized release has occurred, the owner or operator shall comply with the requirements of Article 5 of this chapter, and shall replace, repair or close the underground storage tank pursuant to Article 3, 6, or 7 of this chapter.

(d) Visual monitoring of the exposed portion of a partially concealed underground storage tank shall not relieve an owner from implementing monitoring the concealed portion of the tank using a non-visual monitoring alternative as specified in section 2641 of this article.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25292 and 25293, Health and Safety Code.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2643. Non-Visual Monitoring/Quantitative Release Detection Methods.

(a) An owner required, pursuant to section 2641 of this article, to establish non-visual monitoring shall comply with the requirements of this section if a quantitative release detection method is used. Examples of release detection method(s) that may be used to meet the performance standards of this section are presented in Appendix IV.

(b) At a minimum, any quantitative release detection method(s) used as part of non-visual monitoring shall comply with the performance standards specified in subsection (c) of this section for the monitoring of un-

derground storage tanks, subsection (d) of this section for the monitoring of pressurized piping, and subsection (e) of this section for the monitoring of suction piping.

(c) Any quantitative release detection method(s) used for the monitoring of underground storage tanks shall comply with at least one of the following performance standards:

(1) Monitoring shall be conducted at least monthly (once per calendar month after tank filling) and be capable of detecting a release of 0.2 gallon per hour defined at any operating product level in the underground storage tank with at least a 95 percent probability of detection and not more than a 5 percent probability of false alarm; or

(2) Monitoring shall be conducted which complies with both of the following:

(A) Monitoring shall be conducted at least annually (once per calendar year after tank filling) and be capable of detecting a release of 0.1 gallon per hour defined at or above the maximum product level determined by the overfill protection system in the underground storage tank with at least a 95 percent probability of detection and not more than a 5 percent probability of false alarm; and

(B) Monitoring shall be conducted at least monthly and be capable of detecting a minimum release of 1.0 gallon per hour with a 95 percent probability of detection and not more than a 5 percent probability of false alarm defined at any normal operating product level in the underground storage tank.

(d) Any quantitative release detection method(s) used for the monitoring of piping that conveys hazardous substances under pressure shall comply with the performance standards specified below in subsection 1, and either subsection 2 or subsection 3 as follows:

(1) Monitoring shall be conducted at least hourly at any pressure, provided that the method is capable of detecting a release equivalent to 3.0 gallons per hour defined at 10 pounds per square inch pressure within one hour of its occurrence with at least a 95 percent probability of detection and not more than a 5 percent probability of false alarm. The leak detection method shall have the capability of alerting the operator of the presence of an unauthorized release by restricting or shutting off the flow of product through the piping or by triggering a visual or audible alarm. (After December 22, 1998, the leak detection method shall shut off the pump when a release occurs.) If pipeline use is intermittent, leak detection monitoring is required only at the beginning or end of the period during which the pipeline is under pressure, but in any event there shall not be more than one hour between the time the pipeline is put under pressure and detection of an unauthorized release; and

(2) Monitoring shall be conducted at least monthly at any pressure provided that the method is capable of detecting a minimum release equivalent to 0.2 gallon per hour defined at normal operating pressure with at least a 95 percent probability of detection and not more than a 5 percent probability of false alarm; or

(3) Monitoring shall be conducted at least annually (once per calendar year) at a pressure designated by the equipment manufacturer provided that the method is capable of detecting a minimum release equivalent to 0.1 gallon per hour defined at 150 percent (one and one half times) the normal operating pressure of the product piping system at the test pressure with at least a 95 percent probability of detection and not more than a 5 percent probability of false alarm.

(e) Any quantitative release detection method(s) used for the monitoring of piping that conveys hazardous substances under less than atmospheric pressure shall include monitoring conducted at least every three years which is capable of detecting a minimum release equivalent to 0.1 gallon per hour defined at a minimum of 40 psi with at least a 95 percent probability of detection and not more than a 5 percent probability of false alarm. Daily monitoring shall be performed as described in Appendix II.

(f) Inventory reconciliation and manual tank gauging do not require certification of compliance with the performance standards of subsection (b) of this section. Manual tank gauging and inventory reconciliation release detection methods shall comply with sections 2645 and 2646 of this article, respectively.

(g) Each quantitative release detection method, with the exception of inventory reconciliation and manual tank gauging, shall have a certification stating that it complies with the performance standard(s) specified in this section. This certification shall be provided as a result of one of the following evaluation procedures:

(1) An independent third party testing laboratory shall evaluate and approve the method using the appropriate "EPA Standard Test Procedure" for leak detection equipment presented in Appendix V; or

(2) An independent third party testing laboratory shall evaluate and approve the method using a voluntary consensus standard that is intended for the method being evaluated; or

(3) An independent third party testing laboratory shall evaluate and approve the method using a procedure deemed equivalent to an EPA procedure. Any resultant certification shall include a statement by the association or laboratory that the conditions under which the test was conducted were at least as rigorous as used in the EPA standard test procedure. This certification shall include a statement that:

(A) The method was tested under various conditions that simulate interferences likely to be encountered in actual field conditions (no fewer nor less rigorous than the environmental conditions used in the corresponding EPA test procedure);

(B) Each condition under which the method was tested was varied over a range expected to be encountered in 75 percent of the normal test cases;

(C) All portions of the equipment or method evaluated received the same evaluation;

(D) The amount of data collected and the statistical analysis are at least as extensive and rigorous as the data collected and statistical analysis used in the corresponding EPA test procedure and are sufficient to draw reasonable conclusions about the equipment or method being evaluated;

(E) The full–sized version of the leak detection equipment was physically tested; and

(F) The experimental conditions under which the evaluation was performed and the conditions under which the method was recommended for use have been fully disclosed and that the evaluation was not based solely on theory or calculation.

(4) The evaluation results must contain the same information and shall be reported following the same general format as the EPA standard results sheet as any corresponding EPA test procedure.

(h) The underground storage tank owner shall notify the local agency 48 hours prior to conducting any tank integrity test. The 48–hour notification requirement may be waived by the local agency. Within 30 calendar days of completion of an underground storage tank integrity test, the tank owner shall provide the local agency with a report. The results of any underground storage tank tests, other than those required by this article, performed on the underground storage tank to determine if the underground storage tank has a release shall be reported by the owner or operator to the local agency within 30 days of completion of the test. The report shall be presented in written and/or tabular format as appropriate and shall be at a level of detail appropriate for the release detection method used.

(i) If an automatic tank gauge is used as a method of release detection, the automatic tank gauge shall generate a hard copy of all data reported, including time and date; tank identification; fuel depth; water depth; temperature; liquid volume; the time automatic tank gauging is performed; and hourly temperature corrected volume data during the automatic tank test.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25292, Health and Safety Code; 40 CFR 280.40–280.45.

HISTORY

1. Repealer and new section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2644. Non–Visual Monitoring/Qualitative Release Detection Methods.

(a) An owner required, pursuant to section 2641 of this article, to establish non–visual monitoring shall comply with the requirements of this section if a qualitative release detection method is used. Each qualitative release detection method shall have an independent third party evaluation to certify accuracy and response time of the detection method in accordance with procedures presented in Appendix V. Examples of qualitative release detection method(s) that may be used are presented in Appendix IV.

(b) Vadose zone monitoring release detection shall be conducted in accordance with the requirements of section 2647.

(c) Ground water monitoring release detection shall be conducted in accordance with the requirements of section 2648.

(d) Any qualitative release detection method which includes the installation of monitoring wells or the drilling of other borings shall include installation, construction, and sampling and analysis procedures according to the requirements of section 2649 of this article.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25292, Health and Safety Code; 40 CFR 280.43.

HISTORY

1. Renumbering and amendment of former section 2644 to section 2646 and new section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2645. Manual Tank Gauging and Testing.

(a) Manual tank gauging shall only be used as part of non–visual monitoring for existing underground storage tanks which have a total system capacity of 2,000 gallons or less and which can be taken out of service for at least 48 continuous hours each week. Underground storage tanks with a capacity of 551–2,000 gallons must also receive a tank integrity test each year.

(b) Manual tank gauging shall not be used on tanks with secondary containment and shall not be used as part of a non–visual monitoring alternative under this article after December 22, 1998, for underground storage tanks with a capacity of 1,001 gallons or greater.

(c) Owners of existing underground storage tanks who utilize manual tank gauging as part of a non–visual monitoring alternative shall, at a minimum, conduct weekly gauging according to the following specifications:

(1) Tank liquid level measurements shall be taken at the beginning and ending of a gauging period which shall be at least 36 continuous hours during which no liquid is added to or removed from the tank. The underground storage tank shall be secured to prevent inputs or withdrawals during the gauging period. No inputs shall occur within the 12–hour period preceeding the gauging period. The liquid level measurements shall be based on an average of two consecutive stick readings at both the beginning and ending of the period; and

(2) The equipment used shall be capable of measuring the level of the product over the full range of the tank's height to the nearest one–eighth of an inch; and

(3) If the variation between beginning and ending measurements exceeds the weekly or monthly standards set forth in Table 4.1, a second 36 hour test shall be commenced immediately and all measurements and calculations checked for possible errors. If the second test confirms a variation which exceeds the weekly or monthly standards in Table 4.1, then an unauthorized release shall be suspected and a tank integrity test shall be conducted within 72 hours. The local agency may extend this 72–hour period up to 30 calendar days, if all the contents of the underground tank are safely and properly removed within the 72–hour period.

(d) If the results of a tank integrity test conducted under the requirements of subsection (c)(3) of this section confirm an unauthorized release, the owner shall comply with the requirements of Article 5 of this chapter and replace, repair, or close the underground storage tank in accordance with Article 3, 6, or 7 of this chapter.

Table 4.1
Manual Tank Gauging Measurement Standards

Tank Size (Gallons)	*Weekly Standard* (One Test) (Gallons)	*Monthly Standard* (Average of Four Tests) (Gallons)
550 or Less	10	5
551 to 1,000	13	7
1,001 to 2,000	26	13

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25291, 25292 and 25293, Health and Safety Code; 40 CFR 280.43.

HISTORY

1. Repealer and new section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2646. Inventory Reconciliation.

(a) Inventory reconciliation shall only be used as part of non–visual monitoring for existing underground storage tanks which contain motor vehicle fuels.

(b) After January 1, 1993, inventory reconciliation, and any other leak detection method that utilizes manual stick readings, shall not be used as part of non–visual monitoring for existing underground storage tanks containing a hazardous substance including motor vehicle fuel, where the existing ground water level or the highest anticipated ground water level is less than 20 feet below the bottom of the tank. These ground water levels shall be determined according to the requirements of section 2649(c) of this article.

(c) Inventory reconciliation that utilizes manual stick readings shall not be used after December 22, 1998.

(d) Owners or operators of existing underground storage tanks who utilize inventory reconciliation as part of non–visual monitoring shall comply with the requirements of this section.

(e) Each underground storage tank shall be individually monitored utilizing an inventory reconciliation system that takes into account:

(1) Separate daily underground storage tank quantity measurements for both the stored hazardous substance and any water layer;

(2) Daily readings for underground storage tank input and withdrawals; and

(3) Checking of product inputs indicated by delivery receipt by measurement of the tank inventory volume before and after delivery. Underground storage tanks that are connected by a manifold may require time for the level to stabilize before a measurement is taken.

(f) Meters used for determining inputs and withdrawals shall comply with California Code of Regulations, Title 4, Chapter 9, Subchapter 1, "Tolerances and specifications for commercial weighing and measuring devices." Meters shall be inspected by the County Department of Weights and Measures or a device repairman as defined in the California Business and Professions Code, Division 5, Chapter 5.5.

(g) For the purpose of this section, "daily" means at least 5 days per week. The number of days involved may be reduced by the number of public holidays that occur during any such week. Local agencies may reduce the frequency of monitoring to no less than once every 3 days at facilities that are not staffed on a regular basis, provided that the monitoring is performed on every day the facility is staffed or when inputs or withdrawals are made from the underground storage tank.

(h) Underground storage tank quantity measurements shall be based on liquid level measurements which are:

(1) Performed during periods when no additions or withdrawals are being made to the underground storage tank;

(2) Performed by the underground storage tank owner, operator, or other designated persons who have had appropriate training;

(3) Based on the average of two readings if stick or tape measurements are used;

(4) Determined by equipment capable of measuring the level of the product over the full range of the tank's height to the nearest one–eighth of an inch;

(5) Determined by equipment capable of measuring, to the nearest one–eighth of an inch, water present in the bottom of the underground storage tank. If the underground storage tank is not level, and the measurements are taken manually, then the measurement should occur at the lowest end of the underground storage tank;

(6) Measured at the center of the longitudinal axis of the underground storage tank if access is available or measured at the lowest end of the underground storage tank with a calibration measurement at both ends, if possible, to determine if any underground storage tank tilt exists and, if so, its magnitude; and

(7) Converted to volume measurements based on a calibration chart for the underground storage tank. This chart shall, where feasible, take into account the actual tilt of the underground storage tank.

(i) The daily variation in inventory reconciliation shall be the difference between physically measured inventory in storage and the calculated inventory in storage. The physically measured inventory shall be determined at approximately the same time each day by taking liquid level measurement and converting it to gallons using the calibration chart. The calculated inventory shall be determined at approximately the same time of day for each business day by adding the inputs and subtracting the withdrawals from the physically measured inventory determined the day before. These variations shall be summed for a period of one month. Monthly variations exceeding a variation of 1.0 percent of the monthly tank delivery plus 130 gallons must be investigated in accordance with this section.

(j) The owner or operator shall, on an annual basis, submit a statement to the local agency which states that all inventory reconciliation data are within allowable variations or which includes a list of the period of times and the corresponding variations which exceed the allowable variations. Said statement shall be executed under penalty of perjury.

(k) If the monthly inventory reconciliation, conducted under subsection (i) of this section, exceeds the allowable variation, the owner or operator as appropriate shall:

(1) Notify the local agency of a suspected unauthorized release within 24 hours of completing any inventory reconciliation which exceeds the allowable variation;

(2) Within 24 hours of discovering a variation which exceeds the allowable variation, review the inventory records for the preceding 30 days and determine if a calculation error exists that caused the apparent excessive variation;

(3) Within 24 hours of discovering a variation which exceeds the allowable variation, have all readily accessible facilities carefully inspected for leakage by appropriately trained persons;

(4) Have all dispenser meters associated with hazardous substance withdrawal shall be checked for calibration within 24 hours of completing the procedure required in subsection (3) immediately above;

(5) Continue to conduct inventory reconciliation according to the requirements of this section. If a second 30–day period of data confirms the initial results, the owner or operator shall comply with the requirements of Article 5 of this chapter; and

(6) Conduct such additional tests or investigations as may be required by the local agency.

(l) Whenever any of the steps in subsection (k) of this section are performed, the results shall be documented in the monitoring record required under section 2712 of Article 10 of this chapter. If completion of any one of these steps indicates an inventory reconciliation error that, when corrected, indicates that allowable variations have not been exceeded, then the remainder of the steps need not be completed. If completion of any of these steps indicates that the apparent excessive variation is not due to a release or tank failure, then the remainder of the steps need not be completed.

(m) The transfer of hazardous substances into and out of the underground storage tank may continue while the steps indicated in subsection (k) are being implemented provided the steps indicated are completed within the specified periods. Daily inventory readings and monthly reconciliation shall continue while the steps are being implemented.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25291 and 25292, Health and Safety Code; 40 CFR 280.43.

HISTORY

1. Renumbering and amendment of former section 2644 to section 2646 and repealer of former section 2646 filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2647. Vadose Zone Monitoring Requirements.

(a) Owners of existing underground storage tanks who utilize vadose zone monitoring as part of non–visual monitoring shall comply with the requirements of this section. Vapor monitoring, soil–pore liquid monitoring, or a combination of these or other vadose zone monitoring methods may be used.

(b) Vadose zone monitoring shall not be used as the sole release detection method of non–visual monitoring for existing underground storage tanks where the monitoring well cannot be located within the backfill surrounding the tank, or where the existing ground water level or the highest anticipated ground water level, including intermittent perched ground water, is less than ten feet below the bottom of the tank. Ground water levels shall be determined according to the requirements of section 2649(c) of this article.

(c) Vadose zone vapor monitoring shall be conducted continuously. Other vadose zone monitoring shall be conducted at least weekly. At a minimum, all manual sampling shall comply with the requirements of section 2649(g) of this article.

(d) The number, location, and depths of vadose zone monitoring points shall be selected to achieve the objective specified in section 2641(a) of this article. Where possible, monitoring points shall be located within the excavation backfill surrounding the underground storage tank. The owner or operator shall determine the exact location of the underground storage tank before attempting to install monitoring wells and/or devices as approved by the local agency.

(e) Vadose zone vapor monitoring shall comply with the following minimum requirements:

(1) The vapor characteristics of the stored product, or a tracer compound placed in the underground tank system, shall be sufficiently volatile to result in a vapor level that is detectable by the monitoring devices;

(2) Backfill materials and soils surrounding monitoring points shall be sufficiently porous to readily allow diffusion of vapors;

(3) The level of background contamination in the excavation zone and surrounding soils shall not interfere with the method used to detect releases from the underground storage tank;

(4) The monitoring devices shall be designed and operated to detect any significant increase in concentration above the background of the hazardous substance stored in the underground storage tank, a component or components of that substance, or a tracer compound placed in the tank system;

(5) To maximize release detection, the location and depth of each monitoring point shall be determined according to the most probable movement of vapor through the backfill or surrounding soil;

(6) Vapor monitoring wells located in the backfill shall be constructed so that any unauthorized release that may pond at the horizontal interface between the backfill and natural soils can be detected in the vapor well; and

(7) All vapor monitoring wells shall be installed, constructed, and sampled according to the requirements specified in sections 2649(b), (c), (e) and (f) of this article.

(f) Soil–pore liquid monitoring and other forms of vadose zone monitoring shall comply with the following minimum requirements:

(1) The stored substance shall be susceptible to detection by the proposed release detection method;

(2) The stored substance shall not corrode or otherwise attack the materials from which the detection system is constructed or otherwise render the detection system inoperable or inaccurate; and

(3) Site–specific conditions (e.g., precipitation, ground water, soil–moisture, background contamination) shall not interfere with the operability and accuracy of the release detection method.

(g) Compliance with the requirements of subsections (e) and (f) of this section shall be based on a site–assessment including assessment of the underground storage tank excavation zone.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25292, Health and Safety Code; 40 CFR 280.43.

HISTORY

1. Repealer and new section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2648. Ground Water Monitoring Requirements.

(a) Owners of existing underground storage tanks who utilize ground water monitoring as part of non–visual monitoring shall comply with the requirements of this section. Ground water monitoring may be used in combination with other quantitative or qualitative release detection methods or, where permissible under this section, as the sole release detection method.

(b) Ground water monitoring may be used as the sole release detection method of non–visual monitoring for existing underground tanks only where all of the following conditions exist:

(1) The hazardous substance stored in the underground storage tank is immiscible with water and has a specific gravity of less than one;

(2) Continuous monitoring devices or manual methods are used which are capable of detecting the presence of at least one–eighth of an inch of free product on top of the ground water in the monitoring wells. This capability shall be certified by an independent third party using an appropriate evaluation procedure. Examples of acceptable evaluation procedures are provided in Appendix V of this chapter;

(3) The existing ground water level or the highest anticipated ground water level, including intermittent perched ground water, is less than 20 feet from the ground surface. These ground water levels shall be determined according to the requirements of section 2649(c) of this article;

(4) The hydraulic conductivity of the soil(s) between the underground storage tank and the monitoring wells or devices is at least 0.01 cm/sec (e.g., the soil consists of gravels, coarse to medium sands, or other permeable materials);

(5) The ground water proposed for monitoring has no present beneficial uses (e.g., domestic, municipal, industrial, agricultural supply) or is not hydraulically connected to ground or surface water which has actual beneficial uses; and

(6) Monitoring wells or devices are located within the excavation zone or as close to the excavation zone as feasible.

(c) Compliance with the conditions specified in subsection (b) of this section shall be based on a site–assessment, including assessment of the areas within and immediately below the underground storage tank excavation zone. If ground water monitoring is approved as the sole release detection method of non–visual monitoring, the number and location of the monitoring wells and/or devices as approved by the local agency shall also be based on this site–assessment with minimum requirements as follows:

(1) Single tank – two wells, one at each end of the tank.

(2) Two or three tanks – three wells equally spaced.

(3) Four or more tanks – four wells, at least two of which shall be downgradient and the remainder equally spaced.

(4) Pipelines – additional wells, if needed, as determined by the local agency.

(d) Ground water monitoring shall be conducted at least monthly or continuously. Any continuous monitoring system shall be capable of detecting the presence of hazardous substance on top of the ground water in the monitoring well and allow collection of periodic samples. Ground water samples shall be analyzed by visual observation or field or laboratory analysis as approved by the local agency depending on the method of monitoring and the constituents being evaluated. The local agency may require periodic laboratory analysis where visual observation or field analysis does not provide an adequate degree of detection as compared to that of laboratory analysis. Sampling conducted which requires field or laboratory analysis shall comply with the minimum requirements of section 2649(g) of this article.

(e) The number, location, and depths of ground water monitoring wells shall be selected to achieve the objective specified in section 2641(a) of this article. Monitoring wells shall be located as close as possible to the underground storage tank or the perimeter of the underground storage tank cluster, subject to the review and approval of the local agency.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25292, Health and Safety Code; 40 CFR 280.43.

HISTORY

1. Repealer and new section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2649. Well Construction and Sampling Requirements.

(a) Owners of existing underground tanks who utilize a qualitative release detection method shall comply with the requirements of this section and any applicable requirements of sections 2644, 2647, and 2648 of this article.

(b) The installation of all monitoring wells and the drilling of all other borings shall be in accordance with local permitting requirements or, in their absence, with the following requirements:

(1) All monitoring wells and all other borings shall be logged during drilling according to the following requirements:

(A) Soil shall be described in the geologic log according to the Unified Soil Classification System as presented in Geotechnical Branch Training Manual Numbers 4, 5, and 6, published in January of 1986 (available from the Bureau of Reclamation, Engineering and Research Center, Attention: Code D–7923–A, Post Office Box 25007, Denver, Colorado 80225);

(B) Rock shall be described in the geologic log in a manner appropriate for the purpose of the investigation;

(C) All wet zones above the water table shall be noted and accurately logged. Where possible, the depth and thickness of saturated zones shall be recorded in the geologic log; and

(D) Geologic logs shall be described by a professional geologist or civil engineer, who is registered or certified by the State of California and who is experienced in the use of the Unified Soil Classification System, or by a technician trained and experienced in the use of the Unified Soil Classification System who is working under the direct supervision of one of the aforementioned professionals, provided that the professional must review the logs and assume responsibility for the accuracy and completeness of the logs.

(2) All drilling tools shall be thoroughly steam cleaned immediately before each boring is started;

(3) All well casings, casing fittings, screens, and all other components that are installed in a well shall be thoroughly cleaned before installation;

(4) Soil and water sampling equipment and materials used to construct a monitoring well shall be compatible with the stored hazardous substance and shall not donate, capture, mask, or alter the constituents for

which analyses will be made. All perforated casings used in the construction of monitoring wells shall be factory perforated;

(5) Drilling fluid additives shall be limited to inorganic, non–hazardous materials which conform to the requirements of subsection (b)(4) of this section. All additives used shall be accurately recorded in the boring log;

(6) Representative samples of additives, cement, bentonite, and filter media shall be retained for 90 calendar days for possible analysis for contaminating or interfering constituents;

(7) If evidence of contamination is detected by sight, smell, or field analytical methods, drilling shall be halted until a responsible professional determines if further drilling is advisable;

(8) All borings which are converted to vadose zone monitoring wells shall have the portion of the boring which is below the monitored interval sealed with approved grout;

(9) All borings which are not used for ground water or vadose zone monitoring shall be sealed from the ground surface to the bottom of the boring with an approved grout. All slurry–type grouts used to seal an abandoned boring or an abandoned well shall be emplaced by the tremie method; and

(10) All monitoring wells shall be clearly marked and secured to avoid unauthorized access and tampering. Surface seals may be required by the local agency.

(c) When installing a vadose zone or ground water monitoring well, the highest anticipated ground water level and existing ground water level shall be determined. Highest anticipated ground water levels shall be determined by reviewing all available water level records for wells within one mile of the site. Existing site ground water levels shall be established either by reviewing all available water level measurements taken within the last two years at all existing wells, within 500 feet of the underground storage tank which are perforated in the zone of interest, or by drilling at least one exploratory boring constructed as follows:

(1) The exploratory boring shall be drilled downgradient, if possible, and as near as possible to the underground storage tank within the boundaries of the property encompassing the facility, but no further than ten feet from the underground storage tank;

(2) The exploratory boring may be of any diameter capable of allowing the detection of first ground water;

(3) The exploratory boring shall be drilled to first perennial ground water, or to a minimum depth of 20 feet for vadose zone monitoring wells, or to a minimum depth of 30 feet for ground water monitoring wells if permitted by site lithology;

(4) If ground water is encountered, and ground water monitoring is the monitoring method, the boring shall be converted to a ground water monitoring well consistent with the provisions of this section; and

(5) If ground water is encountered, but ground water monitoring is not the monitoring method, or if the exploratory boring does not encounter ground water, the boring shall be sealed in accordance with the provisions of subsection (b)(9) of this section.

(d) In addition to the requirements of subsection (b) of this section, all ground water monitoring wells shall be designed and constructed according to the following minimum requirements:

(1) Ground water monitoring wells shall extend at least 20 feet below the lowest anticipated ground water level and at least 15 feet below the bottom level of the underground storage tank. However, wells shall not extend through laterally extensive impermeable zones that are below the water table and that are at least five feet thick. In these situations, the well shall be terminated one to two feet into the impermeable zone;

(2) Ground water monitoring wells shall be designed and constructed as filter packed wells that will prevent the migration of the natural soil into the well and with factory perforated casing that is sized to prevent migration of filter material into the well;

(3) Ground water monitoring well casings shall extend to the bottom of the boring and shall be factory perforated from a point of one foot above the bottom of the casing to an elevation which is either five feet above the highest anticipated ground water level or to within three feet of the bottom of the surface seal or to the ground surface, whichever is the lowest elevation;

(4) All well casings shall have a bottom cap or plug;

(5) Filter packs shall extend at least two feet above the top of the perforated zone except where the top two feet of the filter pack would provide cross–connection between otherwise isolated zones or where the ground surface is less than ten feet above the highest anticipated ground water level, the local agency may reduce the height of the filter pack so long as the filter pack extends at least to the top of the perforated zone. Under such circumstances, additional precautions shall be taken to prevent plugging of the upper portion of the filter pack by the overlying sealing material;

(6) Ground water monitoring wells shall be constructed with casings having a minimum inside diameter of two inches which are installed in a boring whose diameter is at least four inches greater than the outside diameter of the casing;

(7) Ground water monitoring wells shall be sealed in accordance with local permitting requirements or, in their absence, with the Department of Water Resources Standards for Well Construction (Reference Bulletins 74–81 and 74–90 on Water Well Standards are available from the Department of Water Resources, Sacramento);

(8) Seventy–two or more hours following well construction, all ground water monitoring wells shall be adequately developed and equilibrium shall be established prior to any water sampling;

(9) Well heads shall be provided with a water–tight cap and shall be enclosed in a surface security structure that protects the well from surface water entry, accidental damage, unauthorized access, and vandalism. Traffic lids shall be clearly marked as monitoring wells; and

(10) Pertinent well information including well identification, well type, well depth, well casing diameters (if more than one size is used), and perforated intervals shall be permanently affixed to the interior of the surface security structure and the well identification number and well type shall be affixed on the exterior of the surface security structure.

(e) In addition to the requirements of subsection (b) of this section, all vadose zone vapor monitoring wells shall be cased and sealed as follows:

(1) Well casings for vapor monitoring shall be fully perforated except for the portion adjacent to a surface seal and that portion used as a free liquid trap;

(2) Surface seals for vapor wells that are completed no more than five feet below the bottom of the underground storage tank and which are above any free water zones may be required at the discretion of the local agency on a site–specific basis;

(3) If surface seals for vapor wells are completed in or below a potential free water zone, the seal shall not extend below the top of the underground storage tank; and

(4) Vapor wells need not be sealed against infiltration of surface water if constructed wholly within backfill that surrounds the underground storage tank and which extends to the ground surface.

(f) Undisturbed (intact) soil samples shall be obtained from all borings for the installation of monitoring wells and all other borings and analyzed according to the following minimum requirements, unless the local agency waives this requirement under this subsection:

(1) Borings shall be drilled and sampled using accepted techniques which do not introduce liquids into the boring and which will allow the accurate detection of perched and saturated zone ground water. If this cannot be accomplished using acceptable techniques, the requirement for soil sampling may be waived by the local agency provided, however, that installation of the vadose zone or ground water monitoring system shall be completed; and provided further, that once below the water table, borings need not be advanced using the same method that was used in the vadose zone;

(2) Soil samples shall be obtained at intervals of five feet or less and at any significant change in lithology, beginning at the ground surface.

Sampling is not required in unweathered bedrock which has little on no permeability;

(3) A soil sample shall be obtained at the termination depth of a dry boring regardless of the spacing interval;

(4) Soil samples shall be of sufficient volume to perform the designated analyses including soil vapor and soil extract analyses and to provide any specified replicate analyses;

(5) Soil samples shall be acquired, prepared, preserved, stored, and transported by methods that are appropriate for the objectives of the investigation which safeguard sample integrity and satisfy the requirements of subsection (g) of this section;

(6) Samples shall be analyzed in a State–certified laboratory by methods that provide quantitative or qualitative results. Lower detection limits shall be verified by the laboratory;

(7) Samples shall be analyzed for one or more of the most persistent constituents that have been stored in the underground storage tank. If the use of the underground storage tank has historically changed, then samples shall be analyzed for at least one constituent from each period of use. If the hazardous substance is known to degrade or transform to other constituents in the soil environment, the analysis shall include these degradation and/or transformation constituents;

(8) If hazardous substances known or suspected to have been contained in the underground storage tank are detected at concentrations in excess of background concentrations (background concentrations shall be applicable only if the constituent occurs naturally at the site), further soil analysis is not necessary pursuant to this subsection. The hazardous substance(s) shall be assumed to have originated from the underground storage tank. In this situation, the remainder of the soil samples need not be analyzed pursuant to these regulations and the owner or operator shall comply with subsection (9) of this section. A permit shall not be granted unless further detailed investigation clearly establishes that the underground storage tank is not the source of the hazardous substance or has been properly repaired since the unauthorized release and that any subsequent unauthorized release from the underground storage tank can be detected despite the presence of the hazardous substance already in the environment; and

(9) If soil analysis indicates that an unauthorized release has occurred, the owner or operator shall comply with the requirements of Article 5 of this chapter and shall replace, repair, or close the underground storage tank pursuant to Article 3, 6 or 7 of this chapter.

(g) The qualitative release detection method shall include consistent sampling and analytical procedures, approved by the local agency, that are designed to ensure that monitoring results provide a reliable indication of the quality of the medium (e.g., ground water, soil–pore liquid, soil vapor, or soil) being monitored. Some acceptable procedures are listed as references in Appendix I, Table C of this chapter. At a minimum, the owner or operator shall provide a written detailed description, to be specified in the permit and to be maintained as part of the records required under section 2712 of Article 10 of this chapter, of the procedures and techniques for:

(1) Sample collection (e.g., purging techniques, water level, sampling equipment, and decontamination of sampling equipment);

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain–of–custody control.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25292, Health and Safety Code; 40 CFR 280.43.

HISTORY

1. New section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2650. Reporting and Recording Applicability.

(a) The requirements of this article apply to all owners or operators of one or more underground storage tanks storing hazardous substances.

(b) The owner or operator shall record or report any unauthorized release from the underground storage tank, and any spill or overfill, in accordance with the requirements of the appropriate sections of Chapter 6.7 of Division 20 of the Health and Safety Code and this article.

(c) The owner or operator of an underground storage tank with secondary containment shall record any unauthorized release described in section 25294 of the Health and Safety Code in accordance with section 2651 of this article.

(d) Owners or operators subject to the requirements of this article shall record all spills and overfills in accordance with the requirements of section 2651 of this article.

(e) The owner or operator of an underground storage tank shall report to the Board any unauthorized release described in section 25295 of the Health and Safety Code, and any of the following conditions according to section 2652 of this article:

(1) Any unauthorized release recorded under subsections (c) or (d) of this section which the owner or operator is unable to cleanup or which is still under investigation within eight hours of detection;

(2) The discovery by the owner or operator, local agency, or others of released hazardous substances at the site of the underground storage tanks or in the surrounding area. This includes the presence of free product or vapors in soils, basements, sewer, and utility lines and nearby surface or drinking waters;

(3) Unusual operating conditions observed by the owner or operator including erratic behavior of product dispensing equipment, the sudden loss of product from the underground storage tank, or an unexplained presence of water in the tank, unless system equipment is found to be defective, but has not leaked, and is immediately repaired or replaced; and

(4) Monitoring results from a release detection method required under Article 3 or Article 4 that indicate a release may have occurred, unless the monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial results.

(f) The reporting requirements of this article are in addition to any reporting requirements specified by section 13271 of Division 7 of the California Water Code and other laws and regulations.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25294 and 29295, Health and Safety Code; 40 CFR 280.52.

HISTORY

1. Amendment of article heading, section heading and section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2651. Recording Requirements for Unauthorized Releases.

(a) Owners or operators required by section 2650 to record a release or condition shall comply with the requirements of this section.

(b) The operator's monitoring records, as required under section 2712 of Article 10 of this chapter, shall include:

(1) The operator's name and telephone number;

(2) A list of the types, quantities, and concentrations of hazardous substances released;

(3) A description of the actions taken to control and clean up the release;

(4) The method and location of disposal of the released hazardous substances (indicate whether a hazardous waste manifest was/will be utilized);

(5) A description of the actions taken to repair the underground storage tank and to prevent future releases. If this involves a change as described in section 25286 of the Health and Safety Code, then notification pursuant to that section shall be made.

(6) A description of the method used to reactivate the interstitial monitoring system after replacement or repair of the primary containment.

(c) The integrity of the secondary containment should be reviewed for possible deterioration under the following conditions:

(1) Hazardous substance in contact with the secondary containment is not compatible with the material used for secondary containment;

(2) The secondary containment is prone to mechanical damage from the mechanical equipment used to remove or clean up the hazardous substance collected in the secondary containment; or

(3) Hazardous substances, other than those stored in the primary containment system, are added to the secondary containment to treat or neutralize the released hazardous substance and the added substance or resulting substance from such a combination is not compatible with the secondary containment.

(d) If a recordable unauthorized release becomes a reportable unauthorized release due to initially unanticipated facts (e.g., secondary containment is breached due to deterioration), the release shall be reported pursuant to section 2652 of this article.

(e) Whenever the local agency reviews the operator's monitoring reports and finds that one or more recordable unauthorized releases have occurred, the local agency shall review the information included in the monitoring records pursuant to subsection (a), shall review the permit, and may inspect the underground storage tank pursuant to section 2712 (e) and (f) of Article 10. If the local agency finds that the containment and monitoring standards of Article 3 of this chapter can no longer be met, the local agency shall require the operator to cease the operation of the underground storage tank system until appropriate modifications are made to comply with the standards.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25291, 25292, 25294 and 29295, Health and Safety Code; 40 CFR 280.52.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2652. Reporting, Investigation and Initial Response Requirements for Unauthorized Releases.

(a) Owners or operators required under section 2650 of this article to report a release or condition, shall comply with the requirements of this section.

(b) Within 24 hours after an unauthorized release or condition has been detected, or should have been detected, the owner or operator shall notify the local agency. The owner or operator shall investigate the condition, take immediate measures to stop the release, and if necessary remove the remaining stored substance from the tank. If an emergency exists, the owner or operator shall also notify the State Office of Emergency Services.

(c) Within 5 working days of detecting an unauthorized release, the owner or operator shall submit to the local agency a full written report which, at the minimum, includes all of the following information to the extent that information is known at the time of filing the report:

(1) Operator's name and telephone number;

(2) A list of the types, quantities, and concentrations of hazardous substances released;

(3) The approximate date the unauthorized release occurred;

(4) The date the unauthorized release was discovered;

(5) The date the unauthorized release was stopped;

(6) A description of the actions taken to control and/or stop the release;

(7) A description of the corrective and remedial actions, including investigations which were undertaken and will be conducted to determine the nature, and extent of soil, ground water or surface water contamination due to the release;

(8) The method(s) of cleanup implemented to date, proposed cleanup actions, and a time schedule for implementing the proposed actions;

(9) The method and location of disposal of the released hazardous substance and any contaminated soils or ground water or surface water. Copies of any completed hazardous waste manifests for off–site transport of these media shall be attached to the report;

(10) A description of the proposed method(s) of repair or replacement of the primary and secondary containment. If this involves a change described in section 25286 of the Health and Safety Code, then notification pursuant to that section shall be made.

(11) A description of any additional actions taken to prevent future releases.

(d) Until investigation and cleanup are complete, the owner or operator shall submit reports to the local agency or regional board, whichever is overseeing the cleanup, every 3 months or at more frequent intervals, as specified by the local agency or regional board. At a minimum, the reports shall include an update of the required information in subsection (c) of this section, and the results of all investigations and corrective actions. Information required by sections 2653 and 2654 shall be submitted as part of the periodic report to the local agency.

(e) Free product removal reports prepared in compliance with section 2655 of this article shall be submitted to the local agency within 45 calendar days of release confirmation.

(f) The owner or operator shall conduct any necessary initial abatement and site characterization actions according to the requirements of sections 2653 and 2654 of this article.

(g) If the test results from either an investigation conducted under subsection (f) of this section, or any other procedures approved by the local agency, do not confirm that a release from the underground storage tank has occurred, no further investigation or corrective action is required.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25286, 25288 and 29295, Health and Safety Code; 40 CFR 280.52–280.53.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2653. Initial Abatement Actions.

(a) Owners or operators required to conduct initial abatement actions, under section 2652(f) of this article, shall comply with the requirements of this section. Owners and operators shall:

(1) Remove as much of the hazardous substance from the underground storage tank as is necessary to prevent further release to the environment.

(2) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and ground water.

(3) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the underground storage tank excavation zone and entered into subsurface structures, such as sewers or basements.

(4) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, or abatement activities. If these remedies include treatment or disposal of soils, the owner and operator must comply with applicable State and local requirements.

(5) Investigate to determine the possible presence of free product. If free product is present, begin removal thereof in accordance with the requirements of section 2655 of this article.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25295, Health and Safety Code; 40 CFR 280.61 and 280.62.

HISTORY

1. New section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2654. Initial Site Characterization.

(a) Owners or operators required to conduct initial site characterization under section 2652(f) of this article, shall comply with the requirements of this section.

(b) The owner or operator shall promptly assemble information about the underground storage tank site and the nature of the unauthorized release, including information gained while confirming the release or com-

pleting any necessary initial abatement actions and free product removal. This information must include, but is not limited to, the following:

(1) Data on the nature and estimated quantity of release;

(2) Data from available sources and/or site investigations concerning the surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, subsurface soil conditions, locations of subsurface utilities, climatological conditions, and land use.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25295, Health and Safety Code; 40 CFR 280.63.

HISTORY

1. New section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2655. Free Product Removal.

(a) At sites where investigations under section 2653 of this article indicate the presence of free product, the owner or operator shall comply with the requirements of this section. The owner or operator shall remove free product to the maximum extent practicable, as determined by the local agency, while continuing to take any actions required under sections 2652 through 2654 of this article.

(b) The owner or operator shall conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site. Free product removal shall result in proper treatment, discharge or disposal of recovery byproducts in compliance with applicable local, State and Federal regulations.

(c) The owner or operator shall use abatement of free product migration as a minimum objective for the design of the free product removal system.

(d) The owner or operator shall handle any flammable products in a safe manner consistent with state and local requirements.

(e) A free product removal report required by section 2652(e) shall, at a minimum, provide the following information:

(1) The name of the person(s) responsible for implementing the free product removal measures;

(2) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

(3) The type of free product recovery system used;

(4) Whether any discharge will take place on–site or off–site during the recovery operation and, if so, where this discharge will be located;

(5) The type of treatment applied to, and the effluent quality expected in, any discharge;

(6) The steps that have been or are being taken to obtain any necessary permits for any discharge; and

(7) The means of disposal and/or proposed disposition of the recovered free product.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25295, Health and Safety Code; 40 CFR 280.64.

HISTORY

1. New section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2660. Applicability.

(a) This article describes the conditions which must be met to repair or upgrade underground storage tank systems.

(b) Section 2661 of this article describes the repair requirements for underground storage tanks and piping.

(c) Section 2662 of this article describes upgrade requirements for corrosion protection for all underground storage tanks installed on or before January 1, 1984. Underground storage tanks constructed of fiberglass, steel clad with fiberglass or noncorrosive materials do not require upgrade to prevent releases due to corrosion.

(d) Section 2663 of this article describes the upgrade requirements for spill and overfill prevention equipment.

(e) Section 2664 of this article describes the upgrade requirements for underground pressurized piping.

(f) Upgrade requirement for underground storage tanks, for spill and overfill prevention, and for underground pressurized piping shall be completed on or before December 22, 1998.

(g) The owner may line an underground storage tank containing motor vehicle fuel not under pressure as a preventative measure. The owner shall notify the local agency of his intent to line the tank. Prior to lining the tank, soil samples shall be taken to ensure that there has not been an unauthorized release. The owner shall notify the local agency prior to taking soil samples. If there has been no unauthorized release, the owner may line the tank in accordance with section 2662 of this article.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25292, 25292.1 and 25296, Health and Safety Code; 40 CFR 280.

HISTORY

1. Amendment of article heading, repealer and adoption of new section filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2661. Underground Storage Tank Repairs.

(a) The evaluations described in subsections (b) through (d) of this section must be completed before a primary container repair can be authorized by the local agency. The local agency shall deny the proposed repair if the owner fails to adequately demonstrate that the repaired primary container will provide continued containment based on the evaluations described below.

(b) It shall be determined if the cause of failure is isolated to the actual failure or is affecting other areas of the underground storage tank, or if any other cause of failure is affecting the primary container.

(c) Appropriate tests shall be conducted and certified by a special inspector that the shell will provide structural support if the tank is repaired using the interior lining method. The special inspector shall make this certification by entering and inspecting the entire interior surface of the underground storage tank and shall base this certification upon the following procedures and criteria:

(1) If the underground storage tank is made of glass fiber, the tank shall be vacuum tested at a vacuum of 5.3 inches of Hg for no less than one minute. This vacuum test is not required if the tank is submerged in ground water by more than 50 percent. The underground storage tank shall be cleaned so that no residue remains on the underground storage tank wall surface. The special inspector shall take interior diameter measurements and, if the cross–section of the tank has compressed more than 1 percent of the original diameter, the underground storage tank shall not be certified and shall also not be returned to service unless the tank is excavated and rehabilitated to correct the compression. The special inspector shall also conduct an interior inspection to identify any area where compression or tension cracking is occurring and shall determine whether additional glass fiber reinforcing is required for certification before the underground storage tank may be lined.

(2) If the underground storage tank is made of steel, the tank shall be vacuum tested at a vacuum of 5.3 inches of Hg for no less than one minute. This vacuum test is not required if the tank is submerged in ground water by more than 50 percent. The underground storage tank interior surface shall be abrasive blasted completely free of scale, rust, and foreign matter. The entire tank interior shall be tested using a thickness gauge on a one–foot grid pattern with wall thicknesses recorded on a form that identifies the location of each reading. The tank must be closed in accordance with Article 7, if any area shows metal thickness less than 75 percent of the original wall thickness or the underground storage tank has any of the following defects:

(A) An open seam or a split longer than 3 inches.

(B) A perforation larger than 1 1/2 inches in diameter or below a gauging opening larger than 2 1/2 inches in diameter.

(C) Five or more perforations in any 1 square-foot area.

(D) Multiple perforations of which any single perforation is larger than 1/2 inch in diameter.

(3) A test approved by the board as comparable to the tests specified in subsection (1) or (2) immediately above.

(d) It shall be demonstrated to the satisfaction of the local agency based on the tests in subsection (c) of this section that a serious corrosion or structural problem does not exist. If the local agency determines that a serious corrosion or structural problem exists, an interior lining repair may be used if it can be demonstrated that new or additional corrosion protection will significantly minimize the corrosion and that the existing corrosion problem does not threaten the structural integrity or containment ability of the underground storage tank.

(e) If interior lining is the proposed repair method, then it shall be demonstrated that the primary container has never been repaired using an interior lining.

(f) If interior lining (coating) is the method of repair, the material used in the repair shall be applied in accordance with nationally recognized engineering practices.

(g) The repair material and any adhesives used shall be compatible with the existing tank materials and shall not be subject to deterioration due to contact with the hazardous substance being stored.

(h) The repair material and lining process shall be listed or certified by an independent testing organization based on voluntary consensus standards. The requirement shall become effective 1 year after the effective date of these regulations.

(i) Holes shall be plugged using self-tapping bolts or boiler plugs or by welding and shall be repaired as follows:

(1) Repair areas shall be covered with epoxy or isophthalic polyester based resin. The resin shall be compatible with the intended use of the tank.

(2) Fiberglass cloth with a minimum weight of 1.5 oz/yd that is silane treated shall be worked completely into the resin base. The resin base shall be installed a minimum of two inches beyond the fiberglass cloth.

(3) All repairs shall include installation of fiberglass cloth with a minimum dimension of 12 x 12 inches centered over the area to be repaired. Larger repairs shall require the cloth to be large enough to provide cloth coverage of at least five inches of cloth bonded to the tank wall, measured from the outermost edge of the repair area, to the cloth's edge.

(4) A second layer of fiberglass cloth of the same weight as specified in subsection 2 above, shall be installed directly over the primary cloth layer, and shall be cut to overlap the primary patch by 1.5 inches on all sides.

(5) This repair shall be allowed sufficient cure time, as determined by the resin manufacturer, to provide an acceptable base for tank lining installation.

(j) Steel underground storage tanks that exhibit external corrosion during the course of inspection or repair shall comply with the cathodic protection requirements in section 2635.

(k) Repaired tanks shall be internally inspected by a coatings expert for conformance with the standards under which it was repaired. Certification of this repair work shall be provided to the local agency by the owner or operator and the party performing the internal inspection.

(l) Repairs to non-steel underground storage tanks shall be properly conducted in accordance with the tank manufacturer's specifications.

(m) Sections of piping and fittings that have released product as a result of corrosion or other damage must be replaced. Soil samples shall be taken in accordance with the requirements in section 2672(d) of Article 7 of this chapter.

(n) Repaired tanks and piping must be tested for tightness within 30 calendar days following the date of completion of the repair in accordance with the tank manufacturer's specifications. Tanks that fail any test shall be repaired in accordance with provisions of this section, replaced in accordance with Article 3, or closed in accordance with Article 7 of this chapter.

(o) Underground storage tank owners and operators must maintain records of repairs for the remaining operating life of the tank that demonstrate compliance with the requirements of this section.

(p) A vapor or ground water monitoring system shall be installed to continuously monitor the repaired underground storage tank for future unauthorized releases, in accordance with section 2647 or 2648, if no secondary containment system exists.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25296, Health and Safety Code; 40 CFR 280.33.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2662. Underground Storage Tank Upgrade.

(a) All underground storage tanks containing hazardous substances, other than those which contain motor vehicle fuel, shall be retrofitted with secondary containment meeting the requirements specified in Article 3 before December 22, 1998.

(b) Owners of motor vehicle fuel tanks made of steel shall, on or before December 22, 1998, retrofit those tanks with secondary containment meeting the requirements specified in Article 3, or provide both interior lining and exterior cathodic protection by complying with the following upgrade requirements:

(1) Tank owners shall provide interior lining by complying with all requirements set forth in section 2661 except subsection (p) and those pertaining to non-steel tank and piping, and

(2) Cathodic protection shall be designed, installed, and inspected as specified in section 2635(a)(2). All cathodic protection wells must be constructed in accordance with applicable state and local well regulations.

(3) The upgraded underground storage tank interior shall be inspected by a coatings expert within ten years of lining and every five years thereafter as follows:

(A) The tank shall be cleaned so that no residue remains on the tank walls.

(B) The tank shall be vacuum tested at a vacuum of 5.3 inches of Hg for no less than one minute.

(C) The inspector shall take interior diameter measurements and visually inspect the lining.

(D) If the liner shows discontinuity, compression or tension cracking or the tank cross-section has compressed more than one percent of the diameter measurement made at the time of lining, the tank shall be replaced or closed in accordance with Articles 3 or 7, respectively.

(E) The entire tank interior shall be tested using a thickness gauge on a one-foot grid pattern with wall thickness recorded on a form that identifies the location of each reading. If any area shows metal thickness less than 75 percent of the original wall thickness the tank shall be closed in accordance with Article 7.

(4) The upgraded underground storage tank shall be replaced or closed in accordance with Articles 3 or 7 at the end of the tank's operational life.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25296, Health and Safety Code; 40 CFR 280.21.

HISTORY

1. Repealer and new section filed 8-9-91; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2663. Spill and Overfill Prevention Equipment Upgrade Requirements.

(a) Underground storage tank systems shall have an overfill prevention system and a spill container which meets the requirements specified in section 2635(c) of this article. The overfill prevention equipment is not required if the spill container is in an observable area and can catch any spill. This requirement applies to all existing underground storage tanks,

regardless of the date of installation, and must be complied with on or before December 22, 1998.

(b) Owners or operators must use care to prevent releases due to spilling or overfilling. The owner, operator, or their agent must ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25292 and 25292.1, Health and Safety Code; 40 CFR 280.21.

HISTORY

1. Repealer and new section filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2664. Underground Pressurized Piping Upgrade Requirement.

(a) All underground pressurized piping containing hazardous substances, other than those which contain motor vehicle fuel, shall be retrofitted with secondary containment meeting the requirements specified in section 2635(b) by December 22, 1998.

(b) All underground pressurized piping containing motor vehicle fuel installed on or before January 1, 1984, shall be retrofitted with secondary containment unless the owner or operator demonstrates to the local agency that the piping is constructed of fiberglass reinforced plastic, cathodically protected steel, or other materials compatible with stored products and resistant to corrosion. The secondary containment system shall meet the requirements specified in section 2635(b). Any retrofitting of such piping which is required shall be completed no later than December 22, 1998.

(c) All underground pressurized piping shall be equipped with automatic line leak detectors no later than December 22, 1990.

(d) All underground pressurized piping and secondary containment shall be tested for tightness after installation and annually in accordance with the requirements specified in section 2635(b)(4) and (5).

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25292, Health and Safety Code; 40 CFR 280.21.

HISTORY

1. New section filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2670. Applicability.

(a) This article defines temporary and permanent closure and describes the nature of activities which must be accomplished in order to protect water quality in each of these situations.

(b) The temporary closure requirements of section 2671 shall apply to those underground storage tanks in which the storage of hazardous substances has ceased but the underground storage tank will again be used for the storage of hazardous substances within the next 12 consecutive months. At the end of 12 months, the local agency may approve an extension of the temporary closure period for a maximum additional period of up to 12 months if the tank system meets the requirements for new underground storage tank system or the upgrade requirements for existing tanks. Section 2671 of this article does not apply to underground storage tanks that are empty as a result of the withdrawal of all stored material during normal operating practice prior to the planned input of additional hazardous substances.

(c) The permanent closure requirements of section 2672 of this article shall apply to those underground storage tanks in which the storage of hazardous substances has ceased and the tanks will not be used, or are not intended for use, for storage of hazardous substances within the next 12 consecutive months.

(d) The requirements of this article do not apply to those underground storage tanks in which hazardous substances are continued to be stored but no filling or withdrawal has been made. In these cases, the applicable containment and monitoring requirements of Articles 3 or 4 of this chapter shall continue to apply.

(e) During the period of time between cessation of hazardous substance storage and actual completion of underground storage tank closure pursuant to section 2671 or 2672, the applicable containment and monitoring requirements of Articles 3 or 4 of this chapter shall continue to apply.

(f) At least thirty (30) days prior to closure, or for such shorter period of time as may be approved by the local agency, the underground storage tank owner who intends to close a tank shall submit to the local agency a proposal describing how the owner intends to comply with section 2671 or 2672 of this article, as appropriate.

(g) Underground storage tanks that have emitted an unauthorized release do not qualify for temporary closure pursuant to section 2671 of this article until the underground storage tank owner demonstrates to the local agency's satisfaction that appropriate authorized repairs have been made which would make the underground storage tank capable of storing hazardous substances in accordance with the permit issued by the local agency.

(h) Underground storage tanks that have emitted an unauthorized release and that cannot be repaired by authorized methods must be permanently closed pursuant to requirements of section 2672.

(i) Underground storage tanks, closed on-site by cleaning and filling with an inert solid prior to January 1, 1984, need not comply with the closure requirements in this section. However, hazardous substances released from such tanks before or after the closure, shall be reported by the owner pursuant to Article 5 of this chapter and shall be cleaned up pursuant to section 13304 of the Water Code and any other applicable law or regulations.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25298, Health and Safety Code; 40 CFR 280.70, 280.71 and 280.73.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2671. Temporary Closure Requirements.

(a) The owner or operator shall comply with all of the following requirements to complete and maintain temporary closure of an underground storage tank:

(1) All residual liquid, solids, or sludges shall be removed and handled pursuant to the applicable provisions of Chapters 6.5 and 6.7 of Division 20 of the Health and Safety Code.

(2) If the underground storage tank contained a hazardous substance that could produce flammable vapors at standard temperature and pressure, then the underground storage tank shall be inerted, as often as necessary to levels that will preclude an explosion or to such lower levels as may be required by the local agency.

(3) The underground storage tank may be filled with a noncorrosive liquid that is not a hazardous substance. This liquid must be tested and the test results submitted to the local agency prior to its being removed from the underground storage tank at the end of the temporary closure period.

(4) Except for required venting, all fill and access locations and piping shall be sealed utilizing locked caps or concrete plugs.

(5) Power service shall be disconnected from all pumps associated with the use of the underground storage tank unless the power services some other equipment which is not being closed such as the impressed current cathodic protection system.

(b) The monitoring required pursuant to the permit may be modified by the local agency during the temporary closure period. In making a decision to modify such monitoring the local agency shall consider the need to maintain monitoring in order to detect unauthorized releases that may have occurred during the time the underground storage tank was used but that have not yet been detected.

(c) The underground storage tank shall be inspected by the owner or operator at least once every 3 months to verify that the temporary closure measures are still in place. Such inspection shall include at least the following actions:

(1) Visual inspection of all locked caps and concrete plugs.

(2) If locked caps are utilized, then at least one shall be removed to determine if any liquids or other substances have been added to the underground storage tank or if there has been a change in the quantity or type of liquid added pursuant to subsection (a)(3) of this section.

(d) The owner may terminate the temporary closure and reuse the underground storage tank only if the local agency approves the reuse according to the requirements specified in sections 2662, 2663, and 2664.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25298, Health and Safety Code; 40 CFR 280.70.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2672. Permanent Closure Requirements.

(a) Owners of underground storage tanks subject to permanent closure shall comply with either subsection (b) of this section for underground storage tank removal or subsection (c) of this section for closure in place. It is not essential that all portions of an underground storage tank be permanently closed in the same manner; however, all actions shall comply with the appropriate subsection of this section. Subsections (d) and (e) of this section regarding no discharge demonstration applies to all underground storage tanks subject to permanent closure.

(b) Owners of underground storage tanks subject to permanent closure shall comply with applicable provisions of Chapter 6.5 of Division 20 of the Health and Safety Code and with the following requirements:

(1) All residual liquid, solids, or sludges shall be removed, and handled as a hazardous waste or recyclable materials in accordance with Chapter 6.5 of the Health and Safety Code.

(2) If the underground storage tank contained a hazardous substance that could produce flammable vapors at standard temperature and pressure, then the underground storage tank shall be inerted to levels that shall preclude explosion or such lower levels as may be required by the local agency.

(3) When an underground storage tank or any part of an underground storage tank is to be disposed of, the owner must document to the local agency that proper disposal has been completed. This documentation shall be submitted within the time frame specified by the local agency.

(4) An owner of an underground storage tank or any part thereof that is destined for a specific reuse shall advise the local agency, within the time frame specified by that agency, of:

(A) The name of the new owner of the underground storage tank;

(B) Name of the new operator;

(C) The location of use; and

(D) Nature of use.

(c) Owners of underground storage tanks subject to permanent closure where the tanks are approved to be closed in place shall comply with the applicable provisions of Chapters 6.5 and 6.7 of Division 20 of the Health and Safety Code and with the following requirements:

(1) All residual liquid, solids, or sludges shall be removed and handled as a hazardous waste or recyclable materials in accordance with Chapters 6.5 and 6.7 of the Health and Safety Code.

(2) All piping associated with the underground storage tank shall be removed and disposed of unless removal might damage structures or other pipes that are being used and that are contained in a common trench, in which case the piping to be closed shall be emptied of all contents and capped.

(3) The underground storage tank, except for piping that is closed pursuant to subsection (2) of this section, shall be completely filled with an inert solid, unless the owner intends to use the underground storage tank for the storage of a nonhazardous substance which is compatible with the previous use of the underground storage tank and its construction.

(d) The owner of an underground storage tank being closed pursuant to this section shall demonstrate to the satisfaction of the local agency that no unauthorized release has occurred. This demonstration shall be based on soil sample analysis and/or water analysis if water is present in the excavation. This analysis shall be performed during or immediately after closure activities. If the demonstration is based on soil sample analysis, soil samples shall be taken and analyzed according to the following requirements:

(1) If the underground storage tank or any portion thereof is removed, soil samples shall be taken immediately beneath the removed portions of the tank, a minimum of two feet into native material at each end of the tank in accordance with section 2649. A separate sample shall be taken for each 20 linear–feet of trench for piping.

(2) If the underground storage tank or any portion thereof is not removed, at least one boring shall be taken as close as possible to the midpoint beneath the tank utilizing a slant boring (mechanical or manual), or other appropriate method such as vertical borings drilled on each long dimensional side of the tank. If the depth of ground water is less than 20 feet, then a ground water monitoring well shall be installed adjacent to the tank and/or piping in the verified downgradient direction.

(3) Soils shall be analyzed in accordance with section 2649 for all constituents of the previously stored hazardous substances and their breakdown or transformation products. The local agency may waive the requirement for analysis of all constituents, breakdown or transformation products when key constituents that pose a significant threat to water quality or the environment can be identified for analysis.

(e) The detection of any unauthorized release shall require compliance with the reporting requirements of Article 5 of this chapter.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25298, Health and Safety Code; 40 CFR 280.71.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2680. General Applicability of this Article.

(a) This article sets up procedures for categorical and site–specific variances from the requirements for the construction and monitoring of new and existing underground storage tanks as described in Chapter 6.7 of Division 20 of the Health and Safety Code and Articles 3 and 4 of this chapter. A site–specific variance, if approved, would apply only to the specific site(s) approved for a variance. A categorical variance, if approved, would apply to the region, area, or circumstances approved for a variance. A categorical variance application shall include more than one site or shall be non–site specific. These procedures are in addition to those established by the appropriate sections of Chapter 6.7 of Division 20 of the Health and Safety Code.

(b) Section 2681 of this article specifies the procedures that must be followed by the applicant and the Board for categorical variance requests.

(c) Section 2682 of this article specifies the procedures that must be followed by the applicant, local agency, and the regional board for site–specific variance requests.

NOTE: Authority cited: Sections 25299.3, Health and Safety Code. Reference: Section 25299.4, Health and Safety Code.

HISTORY

1. Amendment of section heading and subsections (a) and (b) filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2681. Categorical Variances.

(a) A categorical variance allows an alternative method of construction or monitoring which would be applicable at sites in more than one local agency's jurisdiction. Application for a categorical variance shall be made to the Board on a form provided by the Board.

(b) Application for a categorical variance shall include, but not be limited to:

(1) A description of the provision from which the variance is requested.

(2) A description of the proposed alternative program, method, device, or process.

(3) A description of the region, area, or circumstances under which the variance would apply.

(4) Clear and convincing evidence that the proposed alternative will adequately protect the soil and the beneficial uses of waters of the state from an unauthorized release.

(5) A list including names and addresses of all persons known to the applicant who may be affected by or may be interested in the variance request.

(6) Written comments or recommendations from impacted local agencies.

(7) An initial fee of $11,000.

(c) The applicant will be required to pay a fee based on the actual costs of considering the application. The Board will bill the applicant for additional costs or refund any unused portion of the initial fee.

(d) The Board shall review all applications submitted and notify the applicant in writing within 30 days of receipt of the application as to whether or not the application is complete.

(e) The Board shall remand the application to the appropriate regional board if it determines that the application falls within section 2682 of this article.

(f) The Board shall hold at least 2 public hearings as set forth in section 25299.4 of the Health and Safety Code.

(g) If the Board grants the variance, it will prescribe the conditions the applicant must maintain and will describe the specific alternative for which the variance is being granted.

(h) All permit applicants who intend to utilize an approved categorical variance shall attach a copy of the approved variance to the permit application submitted to the local agency. The local agency shall review the application and categorical variance to determine if the variance applies to the specific site. If the local agency concurs in the applicability of the variance, the local agency shall issue a permit to the applicant which includes the conditions prescribed by the Board provided all other permit conditions are met.

(i) The Board shall modify or revoke a categorical variance upon a finding that the proposed alternative does not adequately protect the soil and the beneficial uses of the waters of the state from an unauthorized release. The Board shall not modify or revoke a categorical variance until it has followed procedures comparable to those prescribed in this section and Chapters 1.5 and 6 of Division 3 of Title 23 of the California Code of Regulations. The Board shall notify all affected local agencies of any modification or revocation. Local agencies shall appropriately modify or revoke all permits which were based on the categorical variance.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25299.4, Health and Safety Code.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2682. Site-Specific Variances.

(a) A site-specific variance allows an alternative method of construction or monitoring which would be applicable at one or more sites within a local agency's jurisdiction. Application for a site-specific variance shall be made to the appropriate regional board.

(b) Prior to applying to the regional board for a variance, the applicant shall submit a complete construction and monitoring plan to the local agency. The proposed alternative construction or monitoring methods which may require a variance shall be clearly identified. If the local agency decides that a variance would be necessary to approve the specific methods or if the local agency does not act within 60 days of its receipt of a complete construction and monitoring plan from the applicant, then the applicant may submit the variance application to the regional board.

(c) An application for a site-specific variance shall include, but need not be limited to:

(1) A description of the provision from which the variance is requested.

(2) A detailed description of the complete construction and monitoring methods to be used. The proposed alternative program, method, device, or process shall be clearly identified.

(3) Any special circumstances on which the applicant relies to justify the findings necessary for the variance, as prescribed by the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code.

(4) Clear and convincing evidence that the proposed alternative will adequately protect the soil and the beneficial uses of waters of the state from an unauthorized release.

(5) Any environmental information or documentation requested by the regional board pursuant to the California Environmental Quality Act (Division 13, commencing with section 21000 of the Public Resources Code).

(6) A list including names and addresses of all persons known to the applicant who may be affected by or may be interested in the variance request.

(7) A fee of $2,750 for variance requests at one site. A fee of $5,500 for variance requests at more than one site within one local agency's jurisdiction.

(d) The regional board shall review all applications submitted and shall notify the applicant in writing within 30 days of receipt of the application as to whether or not the application is complete.

(e) The regional board shall hold a hearing on the proposed variance as specified in section 25299.4(c) of the Health and Safety Code.

(f) Any site-specific variance shall prescribe appropriate additional conditions and shall describe the specific alternative system for which the variance is being granted. The regional board shall notify the applicant, the local agency, and the Board of its decision.

(g) If the variance is approved, the local agency shall issue a permit to the applicant which includes the conditions prescribed by the regional board. A local agency shall not modify the permit unless it determines that the modification is consistent with the variance that has been granted.

(h) The regional board shall modify or revoke a variance upon a finding that the proposed alternative does not adequately protect the soil and the beneficial uses of the waters of the state from an unauthorized release. The regional board shall not modify nor revoke the variance until it has followed procedures comparable to those prescribed in this section and Chapters 1.5 and 6 of Division 3 of Title 23 of the California Code of Regulations. The regional board shall notify the local agency and the Board of the modification or revocation. The local agency shall modify or revoke the permit for the site.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25299.4, Health and Safety Code.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23-2690. Applicability.

This article sets up procedures for local agencies to request Board authorization for design and construction standards other than those set by Article 3 of this chapter. These procedures are in addition to those established by Chapter 6.7 of Division 20 of the Health and Safety Code.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25299.2 and 25299.7, Health and Safety Code.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2691. Additional Standards Request Procedures.

(a) A local agency application for additional design and construction standards shall include:

(1) A description of the proposed design and construction standards which are in addition to those described in Article 3 of this chapter.

(2) Clear and convincing evidence that the additional standards are necessary to protect the soil and beneficial uses of the waters of the state from unauthorized releases.

(3) Any documents required by the California Environmental Quality Act (Division 13, commencing with section 21000 of the Public Resources Code).

(4) An initial fee of $5,500.

(b) The applicant shall be required to pay a fee based on the actual costs of considering the application. The Board will bill the applicant for additional costs or refund any unused portion of the initial fee.

(c) The Board shall conduct an investigation and public hearing on the proposed standards and the need to protect the soil and beneficial uses of the water before determining whether to authorize the local agency to implement additional standards.

(d) The Board may modify or revoke a previously issued authorization allowing the implementation of additional standards if it finds that, based on new evidence, the additional standards are not necessary to adequately protect the soil and beneficial uses of the waters of the state from unauthorized releases. The Board shall not modify nor revoke the authorization until it has followed procedures comparable to those presented in Chapters 1.5 and 6 of Division 3 of Title 23 of the California Code of Regulation.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25299.4, Health and Safety Code.

HISTORY

1. Amendment filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2710. General Applicability of Article.

(a) This article describes specific administrative actions that must be undertaken by all underground storage tank owners, local agencies, and the Board relative to issuing permits for underground storage tanks. These actions are in addition to those established by Chapter 6.7 of Division 20 of the Health and Safety Code.

(b) Section 2711 of this article lists the information that must be submitted by the underground storage tank owner to the local agency as part of the permit application.

(c) Section 2712 of this article describes the conditions associated with a permit for the operation of an underground storage tank and the conditions which local agencies must meet prior to permit issuance.

(d) Section 2713 of this article describes the quarterly report requirements for local agencies for unauthorized releases.

(e) Section 2714 of this article specifies conditions that must be met by an underground storage tank owner when requesting trade secret protection for any information submitted to the local agency, Board, or regional board. It also specifies how the local agency, the Board, or regional board shall consider the request and how they shall maintain the information if the trade secret request is accepted.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25284, 25285, 25286, 25288, 25289, 25290 and 25293 Health and Safety Code.

HISTORY

1. Amendment of article and section headings and text filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2711. Permit Application and Information.

(a) The permit application shall include, but not be limited to, the following information to the extent such information is known to the permit applicant:

(1) The name and address of the person who owns the underground storage tank or tanks.

(2) The name, location, mailing address, and phone number where the underground storage tank is located, and type of business, if any, involved.

(3) The name, address, and telephone numbers of the underground storage tank operator and 24–hour emergency contact person.

(4) The name and telephone number of the person making the application, if other than the owner.

(5) A description of the underground storage tank including, but not limited to, the underground storage tank manufacturer, date of installation and tank capacity.

(6) Construction details of the underground storage tank and any auxiliary equipment including, but not limited to, type of primary containment, type of secondary containment (if applicable), spill and overfill prevention equipment, interior lining, and corrosion protection (if applicable).

(7) A description of the piping including, but not limited to, the type of piping system, construction, material, corrosion protection and leak detection.

(8) A scaled diagram or design or as–built drawing which indicates the location of the underground storage tank (underground storage tank, piping, auxiliary equipment) with respect to buildings or other landmarks.

(9) The description of the proposed monitoring program including, but not limited to, the following where applicable:

(A) Visual inspection procedures;

(B) Underground storage tank release detection methods or inspection procedures;

(C) Inventory reconciliation including gauging and reconciliation methods;

(D) Pipeline leak detection methods;

(E) Vadose zone sampling locations, and methods and analysis procedures;

(F) Ground water well(s) locations construction and development methods, sampling, and analysis procedures; and

(10) A list of all the substances which previously, currently, or are proposed to be stored in the underground storage tank or tanks.

(11) Documentation to show compliance with State and Federal financial responsibility requirements applicable to underground storage tanks containing petroleum.

(12) If the owner or operator of the underground storage tank is a public agency, the application shall include the name of the supervisor of the division, section, or office which operates the underground storage tank.

(13) The permit application must be signed by:

(A) The owner of the underground storage tank or a duly authorized representative of such owner;

(B) If the tank is owned by a corporation, partnership, or public agency, the application must be signed by:

1. A principal executive officer at the level of vice–president or by an authorized representative. The representative must be responsible for the overall operation of the facility where the underground storage tank(s) are located;

2. A general partner proprietor; or

3. A principal executive officer, ranking elected official, or authorized representative of a public agency.

(b) The owner or operator must inform the local agency of any changes to the information provided in subsection (a) of this section within 30 calendar days unless required to obtain approval before making the change.

(c) The permit application (Form A dated 5/91 and Form B dated 7/91) shall be accompanied by the local government and state surcharge fees.

(d) The local agency shall provide the California Association of Environmental Health Administrators with copies of permit applications in accordance with the requirements of Chapter 6.7 of the Health and Safety Code.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25286 and 25287, Health and Safety Code.

History

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in History 1. (Register 92, No. 43).

§ 23-2712. Permit Conditions.

(a) As a condition of any permit to operate an underground storage tank, the owner or operator shall comply with the reporting and recording requirements for unauthorized releases specified in Article 5 of this chapter.

(b) Written records of all monitoring and maintenance performed shall be maintained on-site or off-site at a readily available location, if approved by the local agency, for a period of at least 3 years. These records must be made available, upon request within 36 hours, to the local agency or the Board. Monitoring records shall include:

(1) The date and time of all monitoring or sampling;

(2) Monitoring equipment calibration and maintenance records;

(3) The results of any visual observations;

(4) The results of all sample analysis performed in the laboratory or in the field, including laboratory data sheets and analysis used;

(5) The logs of all readings of gauges or other monitoring equipment, ground water elevations, or other test results; and

(6) The results of inventory readings and reconciliations.

(c) A permit to operate issued by the local agency shall be effective for 5 years. The permit shall show the state underground storage tank identification number(s) for which the permit was issued. Before a local agency issues a new permit or renewal to operate an underground storage tank the local agency shall inspect the underground storage tank and determine that the underground storage tank complies with the provisions of these regulations.

(d) Permits may be transferred to new underground storage tank owners if: (1) the new underground storage tank owner does not change any conditions of the permit, (2) the transfer is registered with the local agency within 30 days of the change in ownership, and (3) State permit application forms are completed to show the changes. Transferred permits shall expire and be renewed on the original expiration date. A local agency may review, modify, or terminate the permit to operate the underground storage tank upon receiving an ownership transfer request.

(e) The local agency shall not renew an underground storage tank permit unless the underground storage tank has been inspected by the local agency or a special inspector within the prior 3 years and the inspection indicated that the underground storage tank complied with Article 3 or 4 of this chapter, as applicable, and with all existing permit conditions. The inspection shall be conducted as specified in the appropriate subsection of Chapter 6.7 of Division 20 of the Health and Safety Code. If the inspection indicated noncompliance then the local agency must verify by a follow-up inspection that all required corrections have been implemented before renewing the permit.

(f) Within 30 days of receiving an inspection report from either the local agency or the special inspector, the permit holder shall implement the corrections specified in the inspection report and comply with either Article 3 or Article 4 of this chapter, as appropriate, and the permit conditions. The corrective action shall include all of the recommendations made by the local agency or special inspector. The local agency may waive the implementation of any of the special inspector's recommendations based on a demonstration by the permit holder to the local agency's satisfaction that failure to implement the recommendation will not cause an unauthorized release.

(g) The local agency shall take appropriate enforcement action pursuant to section 25299 of the Health and Safety Code or prohibit the operation of the tank systems if the owner or operator fails to comply with the monitoring requirements specified in Article 3 or 4 of this chapter or the reporting requirements specified in Article 5 of this chapter.

Note: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Sections 25284, 25285, 25286, 25288, 25289, 25293 and 25294, Health and Safety Code; 40 CFR 280.

History

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in History 1. (Register 92, No. 43).

§ 23-2713. Transmittal of Unauthorized Release Reports.

(a) Each local agency shall transmit unauthorized release information, submitted by the owner or operator pursuant to Article 5 of this chapter to the appropriate regional board.

(b) Local agencies shall transmit unauthorized release update report information, submitted by the owner or operator pursuant to section 2712 of this Article, to the appropriate regional board for sites where they are overseeing cleanup. Local agencies shall transmit this unauthorized release update information on a quarterly schedule established by the Board.

Note: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25286, Health and Safety Code.

History

1. Repealer and new section filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).

2. Editorial correction of printing errors in History 1. (Register 92, No. 43).

§ 23-2714. Trade Secret Provisions.

(a) Any person providing information in an application for a permit to operate an underground storage tank or for renewal of the permit or application for a categorical or site-specific variance, shall, at the time of its submission, identify all information which the person believes is a trade secret and submit a legal justification for the request for confidentiality. The information which must be submitted includes:

(1) Which portions of the information submitted are believed to be trade secrets;

(2) How long this information should be treated as confidential;

(3) Measures that have been taken to protect this information as confidential; and

(4) A discussion of why this information is subject to trade secret protection, including references to statutory and case law as appropriate.

(b) If the local agency, the Board, or the regional board determines that a request for trade secret protection is clearly valid, the material shall be given trade secret protection as discussed in subsection (f) of this section.

(c) If the local agency, the Board, or the regional board determines that the request for trade secret protection is clearly frivolous, it will send a letter to the applicant stating that the information will not be treated as a trade secret unless the local agency, the Board, or the regional board is instructed otherwise by a court within 10 working days of the date of the letter.

(d) If the validity of the request for trade secret protection is unclear, the local agency, the Board, or the regional board will inform the person claiming trade secrecy that the burden is on him to justify the claim. The applicant will be given a fixed period of time to submit such additional information as the local agency, the Board, or the regional board may request. The local agency, the Board, or the regional board shall then evaluate the request on the basis of the definition of "trade secrets" contained in the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code and issue its decision. If the local agency, the Board, or the regional board determines that the information is not a trade secret, it shall act in accordance with subsection (c) of this section.

(e) All information received for which trade secrecy status is requested shall be treated as confidential as discussed in subsection (f) of this section until a final determination is made.

(f) Information which has been found to be confidential or which is being reviewed to determine if confidentiality should exist, shall be immediately filed in a separate "confidential" file. If a document or portion of a document is filed in a confidential file, a notation should be filed with

the file document indicating that further information is in the confidential file.

(g) Information contained in confidential files shall only be disclosed to authorized representatives of the applicant or other governmental agencies in connection with the Board's, the regional board's, or the local agency's responsibilities pursuant to Chapter 6.7 of the Health and Safety Code or Division 7 of the Water Code.

(h) Nothing contained herein shall limit an applicant's right to prevent disclosure of information pursuant to other provisions of law.

NOTE: Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code. Reference: Section 25290, Health and Safety Code.

HISTORY

1. Amendment filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

Appendix I

Table A
Suggested Test Methods
Applicable to Regulatory Requirements

Section Number		
2631(d)(6)	ASTM D-751, (1989)	"Coated Fabrics"
	ASTM D-1004 (1988)	"Initial Tear Resistance of Plastic Film and Sheeting"
2631(d)(6)	ASTM D-413, (1982)	"Rubber Property - Adhesion to Flexible Substrate"
	ASTM D-471 (1979)	"Rubber Property - Effect of Liquids"
	ASTM D-638 (1989)	"Tensile Properties of Plastics"
	ASTM E-96 (1980)	"Water Vapor Transmission of Materials"
2631(d)(6)	FTMS 101C Method 2065 (1980)	"Puncture Resistance and Elongation Test (1/8 inch Radius Probe Method)"
2631(d)(6)	FTMS 101C Method 2031 (1980)	"Puncture Resistance"

Table B
Organizations That Adopt
Voluntary Consensus Standards

ANSI	American National Standards Institute 1430 Broadway New York, NY 10018 (212) 354-3300
API	American Petroleum Institute 1220 L Street, N.W. Washington, D.C. 20005 (202) 682-8000
ASME	The American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017 (212) 705-7800
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103 (215) 299-5400
NACE	National Association of Corrosion Engineers 1440 South Creek Drive Katy, TX 77450 (713) 492-0535
NFPA	National Fire Protection Association Batterymarch Park Quincy, MA 02269 (617) 328-9290
NSF	National Sanitation Foundation 3475 Plymouth Road Post Office Box 1468 Ann Arbor, MI 48106 (313) 769-8010
UL	Underwriters Laboratories 333 Pfingsten Road Northbrook, IL 60062 (312) 272-8800
ULC	Underwriters Laboratories of Canada, Inc. 7 Crouse Road Scarborough, Ontario

Table C

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Final Rule and Interim Final Rule and Proposed Rule," EPA Fed. Reg. Vol. 49, No. 209, October 26, 1984.

"Manual of Methods for the Chemical Analysis of Water and Wastes," EPA 600/4-79-020, March 1979.

"Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities," EPA 530/SW-611, August 1977.

"Soil Sampling Quality Assurance User's Guide," EPA 600/4-84-043, May 1984.

"Hazardous Waste Land Treatment." EPA SW-874, April 1983.

"Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater," EPA 600/4-82-057, July 1982.

"Handbook for Sampling and Sample Preservation of Water and Wastewater," EPA 600/4-82-029, September 1982.

"Manual of Analytical Quality Control for Pesticides and Related Compounds in Human and Environmental Samples," EPA 600/2-81-059, April 1981.

"EPA Test Methods for Evaluating Solid Waste - Physical/Chemical Method," SW-846

"Manual of Analytical Methods for the Analysis of Pesticides in Human and Environmental Samples," EPA 600/8-080-038.

"Standard Methods for the Examination of Water and Wastewater," American Public Health Assoc., American Water Works Assoc., Water Pollution Control Federation, 15th Edition, 1981.

"Selected Analytical Methods Approved and Cited by the United States Environmental Protection Agency," Supplement to the Fifteenth Edition of Standard Methods for the Examination of Water and Wastewater, 1981.

"Guidelines on Sampling and Statistical Methodologies for Ambient Pesticide Monitoring," Federal Working Group on Pest Management, October 1974.

"American Society for Testing and Materials (ASTM) Annual Book of Standards, Part 31, Water," 1982.

"Methods for Analysis of Organic Substances in Water," U.S. Geological Survey, Techniques of Water-Resources Investigations, Book 5, Chapter A3 1972.

"Criteria for Identification of Hazardous and Extremely Hazardous Wastes," Sections 66693 through 66746, Article 11, Chapter 30, Division 4, Title 22, California Code of Regulations.

HISTORY

1. Amendment of Appendix I filed 8-9-91 as an emergency; operative 8-9-91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

Appendix II

Suction Pipelines Monitoring

Suction pipelines shall be monitored for the presence of air in the pipeline by observing the suction pumping system for the following indicators:

(1) The cost/quantity display wheels on the meter suction pump skip or jump during operation;

(2) The suction pump is operating, but no motor vehicle fuel is being pumped;

(3) The suction pump seems to overspeed when first turned on and then slows down as it begins to pump liquid; and

(4) A rattling sound in the suction pump and erratic flow indicating an air and liquid mixture.

If any of the above indicators are observed during testing of the suction piping system, the pipeline check valve should be inspected to determine if it is seated tightly. If there is any doubt following the inspection that the valve seats tightly, it should be repaired, replaced, or sealed off. Then the suction pumping test should be repeated and, if air is still entering the suction line, it is assumed that the pipe is leaking underground.

HISTORY

1. New Appendix II filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

Appendix III

Monitoring requirements for farm tanks having a capacity greater than 1,100 gallons are found in section 25292(b)(5) of Chapter 6.7 of Division 20 of the Health and Safety Code (see below). Section 25292(b)(5) refers to section 2641(c)(7) of Title 23 of the California Code of Regulations as it existed on August 13, 1985.

23 CCR 2641(c)(7) (August 12, 1985)

Underground Storage Tank Gauging and Testing:

(A) This monitoring alternative shall, at a minimum, utilize gauging and testing of the underground storage tank. This alternative shall only be utilized for underground storage tanks which do not have frequent inputs or withdrawals and where the liquid level in the underground storage tank can be measured to an accuracy of +5 gallons or less when the liquid level in the underground storage tank is such that a unit change in underground storage tank contents causes the smallest liquid level variation.

(B) The underground storage tank gauging shall be performed according to the following specifications:

1. The underground storage tank shall be capable of being secured to prevent unauthorized inputs or withdrawals.

2. Tank liquid level measurements shall be taken at the beginning and end of consecutive periods each lasting up to 7 days. No input or withdrawals shall occur during these periods. The liquid level measurement at the beginning and end of each period shall, if possible, be performed by the same person;

3. Underground storage tank testing shall be performed yearly at a minimum according to the procedures specified in section 2643 of this article; and

4. If the liquid level varies by more than 1 percent of the underground storage tank's volume or 5 gallons, whichever is less, between measurements, an unauthorized release shall be assumed to have occurred. The reporting requirements of Article 5 of this subchapter shall be followed and further evaluations shall be performed to verify or disprove the variations.

25292(b)(5), Health and Safety Code

(5) For monitoring underground storage tank systems which are located on farms and which store motor vehicle or heating fuels used primarily for agricultural purposes, alternative monitoring methods include the following:

(A) If the tank has a capacity of greater than 1,100 gallons but of 5,000 gallons or less, the tank shall be tested using the tank integrity test, at least once every three years, and the owner shall utilize tank gauging on a monthly or more frequent basis, as required by the local agency, subject to the specifications provided in paragraph (7) of subdivision (c) of section 2641 of Title 23 of the California Code of Regulations, as that section read on August 13, 1985.

(b) If the tank has a capacity of more than 5,000 gallons, the tank shall be monitored pursuant to the methods for all other tanks specified in this subdivision.

HISTORY

1. New Appendix III filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

Appendix IV

Examples of Quantitative Release Detection Methods for Tanks

Detection Method	*Performance Standards*
Automatic Tank Gauging (Monthly)	Subsection 2643(c)(1)
Tank Integrity Test (Annually) and	Subsection 2643(c)(2)(A)
Inventory Reconciliation (Monthly)	Subsection 2643(c)(2)(B)
Manual Tank Gauging (Weekly)	Section 2645

Examples of Quantitative Release Detection Methods for Pressure Piping

Detection Method	*Performance Standards*
Automatic Line Leak Detector (Hourly) and	Subsection 2643(d)(1)
Electronic Line Leak Detector (Monthly)	Subsection 2643(d)(2)
Automatic Line Leak Detector (Hourly) and	Subsection 2643(d)(1)
Electronic Line Leak Detector (Annually)	Subsection 2643(d)(3)
Automatic Line Leak Detector (Hourly) and	Subsection 2643(d)(1)
Line Tightness Test (Annually)	Subsection 2643(d)(3)
Electronic Line Leak Detector (Hourly)	Subsection 2643(d)(3)

Examples of Quantitative Release Detection Methods for Suction Piping

Line Tightness Test (Triannually) and	Section 2643(e)
Daily Monitoring	Appendix II

Examples of Qualitative Release Detection Methods

Vapor Monitoring or	Sections 2644(b) and 2647
Ground Water Monitoring	Sections 2644(c) and 2648

HISTORY

1. New Appendix IV filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

Appendix V

Evaluation Procedure for Leak Detection Equipment

Leak detection equipment can be evaluated for performance in accordance with one of the following three evaluation procedures:

1. EPA Standard Test Procedures

EPA has developed a series of standard test procedures that cover most of the methods commonly used for underground storage tank leak detection. These include:

a. "Standard Test Procedures for Evaluating Leak Detection Methods: Volumetric Tank Tightness Testing Methods"

b. "Standard Test Procedures for Evaluating Leak Detection Methods: Nonvolumetric Tank Tightness Testing Methods"

c. "Standard Test Procedures for Evaluating Leak Detection Methods: Automatic Tank Gauging Systems"

d. "Standard Test Procedures for Evaluating Leak Detection Methods: Statistical Inventory Reconciliation Methods"

e. "Standard Test Procedures for Evaluating Leak Detection Methods: Vapor–Phase Out–of–Tank Product Detectors"

f. "Standard Test Procedures for Evaluating Leak Detection Methods: Liquid–Phase Out–of–Tank Product Detectors"

g. "Standard Test Procedures for Evaluating Leak Detection Methods: Pipeline Leak Detection Systems"

Each test procedure provides an explanation of how to conduct the test, how to perform the required calculations, and how to report the results. The results from each standard test procedure provide the information needed by tank owners and operators to determine if the method meets the regulatory requirements.

EPA standard test procedures must be conducted by an independent third party under contract to the manufacturer in order to prove compliance with the regulations. Independent third–parties may include consulting firms, test laboratories, not–for–profit research organizations, or educational institutions with no organizational conflict of interest. In general, evaluations are more likely to be fair and objective the greater the independence of the evaluating organization.

2. National Consensus Code or Standard

A second way for a manufacturer to prove the performance of leak detection equipment is to have an independent third party evaluate the system following a national voluntary consensus code or standard developed by a nationally recognized association (e.g., ASTM, ASME, ANSI, etc.). Throughout the technical regulations for underground storage tanks, EPA has relied on national voluntary consensus codes to help tank owners decide which brands of equipment are acceptable. Although no such code presently exists for evaluating leak detection equipment, one is under consideration by the ASTM D–34 subcommittee. Guidelines for developing these standards may be found in the U.S. Department of Commerce "Procedures for the Development of Voluntary Product Standards" (FR, Vol. 51, No. 118, June 29, 1986) and OMB Circular No. A–119.

3. Alternative Test Procedures Deemed Equivalent to EPA's

In some cases, a specific leak detection method may not be adequately covered by EPA standard test procedures or a national voluntary consensus code, or the manufacturer may have access to data that makes it easier to evaluate the system another way. Manufacturers who wish to have their equipment tested according to a different plan (or who have already done so) must have that plan developed or reviewed by a nationally recognized association or independent third–party testing laboratory (e.g. Factory Mutual, National Sanitation Foundation, Underwriters Laboratory, etc.). The results should include an accreditation by the association or laboratory that the conditions under which the test was conducted were at least as rigorous as the EPA standard test procedure. In general, this will require the following:

a. The evaluation tests the system both under the no–leak condition and an induced–leak condition with an induced leak rate as close as possible to (or smaller than) the performance standard. In the case of tank testing, this will mean testing under both 0.0 gallon per hour and 0.10 gallon per hour leak rates. In the case of ground water monitoring, this will mean testing with 0.0 and 0.125 inch of free product.

b. The evaluation should test the system under at least as many different environmental conditions as the corresponding EPA test procedure.

c. The conditions under which the system is evaluated should be at least as rigorous as the conditions specified in the corresponding EPA test procedure. For example, in the case of volumetric tank tightness testing, the test should include a temperature difference between the delivered product and that already present in the tank, as well as the deformation caused by filling the tank prior to testing.

d. The evaluation results must contain the same information and should be reported following the same general format as the EPA standard results sheet.

e. The evaluation of the leak detection method must include physical testing of a full–sized version of the leak detection equipment, and a full disclosure must be made of the experimental conditions under which: (1) the evaluation was performed, and (2) the method was recommended for use. An evaluation based solely on theory or calculation is not sufficient.

HISTORY

1. New Appendix V filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

Appendix VI

Certificate of Tank and Pipe Installations

The owner or operator shall use the form below to certify that the UST and piping were installed properly.

HISTORY

1. New Appendix VI filed 8–9–91 as an emergency; operative 8–9–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.7 (Register 92, No. 14).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

CERTIFICATION OF COMPLIANCE FOR UNDERGROUND STORAGE TANK INSTALLATION

FORM C

COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM

I. SITE LOCATION

STREET _____

CITY _____ COUNTY _____

II. INSTALLATION (mark all that apply):

- ☐ The installer has been certified by the tank and piping manufacturers.
- ☐ The installation has been inspected and certified by a registered professional engineer.
- ☐ The installation has been inspected and approved by the implementing agency.
- ☐ All work listed on the manufacturer's installation checklist has been completed.
- ☐ The installation Contractor has been certified or licensed by the Contractors State License Board.
- ☐ Another method was used as allowed by the implementing agency. (Please specify.)

_____

III. OATH I certify that the information provided is true to the best of my belief and knowledge.

Tank Owner/Agent _____ Date _____

Print Name _____ Phone ( ) _____

Address _____

LOCAL AGENCY USE ONLY

STATE TANK I.D #	COUNTY #	JURISDICTION #	FACILITY #	TANK #

FORM C (7/91) THIS FORM MUST BE ACCOMPANIED BY PERMIT APPLICATION FORMS A & B UNLESS THEY HAVE BEEN FILED PREVIOUSLY FORM3C7

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM A

COMPLETE THIS FORM FOR EACH FACILITY/SITE

MARK ONLY ONE ITEM: ☐ 1 NEW PERMIT ☐ 2 INTERIM PERMIT ☐ 3 RENEWAL PERMIT ☐ 4 AMENDED PERMIT ☐ 5 CHANGE OF INFORMATION ☐ 6 TEMPORARY SITE CLOSURE ☐ 7 PERMANENTLY CLOSED SITE

I. FACILITY/SITE INFORMATION & ADDRESS - (MUST BE COMPLETED)

DBA OR FACILITY NAME		NAME OF OPERATOR	
ADDRESS		NEAREST CROSS STREET	PARCEL # (OPTIONAL)
CITY NAME	STATE: CA	ZIP CODE	SITE PHONE # WITH AREA CODE

✓ BOX TO INDICATE: ☐ CORPORATION ☐ INDIVIDUAL ☐ PARTNERSHIP ☐ LOCAL-AGENCY DISTRICTS ☐ COUNTY-AGENCY ☐ STATE-AGENCY ☐ FEDERAL-AGENCY

TYPE OF BUSINESS: ☐ 1 GAS STATION ☐ 2 DISTRIBUTOR ☐ 3 FARM ☐ 4 PROCESSOR ☐ 5 OTHER	☐ ✓ IF INDIAN RESERVATION OR TRUST LANDS	# OF TANKS AT SITE	E. P. A. I. D. # (optional)

EMERGENCY CONTACT PERSON (PRIMARY)		EMERGENCY CONTACT PERSON (SECONDARY) - optional	
DAYS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE	DAYS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE
NIGHTS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE	NIGHTS: NAME (LAST, FIRST)	PHONE # WITH AREA CODE

II. PROPERTY OWNER INFORMATION - (MUST BE COMPLETED)

NAME		CARE OF ADDRESS INFORMATION	
MAILING OR STREET ADDRESS		✓ box to indicate: ☐ INDIVIDUAL ☐ LOCAL-AGENCY ☐ STATE-AGENCY ☐ CORPORATION ☐ PARTNERSHIP ☐ COUNTY-AGENCY ☐ FEDERAL-AGENCY	
CITY NAME	STATE / ZIP CODE		PHONE # WITH AREA CODE

III. TANK OWNER INFORMATION - (MUST BE COMPLETED)

NAME OF OWNER		CARE OF ADDRESS INFORMATION	
MAILING OR STREET ADDRESS		✓ box to indicate: ☐ INDIVIDUAL ☐ LOCAL-AGENCY ☐ STATE-AGENCY ☐ CORPORATION ☐ PARTNERSHIP ☐ COUNTY-AGENCY ☐ FEDERAL-AGENCY	
CITY NAME	STATE / ZIP CODE		PHONE # WITH AREA CODE

IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER - Call (916) 323-9555 if questions arise.

TY (TK) HQ 44- ☐☐☐☐☐☐

V. PETROLEUM UST FINANCIAL RESPONSIBILITY - (MUST BE COMPLETED) – IDENTIFY THE METHOD(S) USED

✓ box to indicate: ☐ 1 SELF-INSURED ☐ 2 GUARANTEE ☐ 3 INSURANCE ☐ 4 SURETY BOND ☐ 5 LETTER OF CREDIT ☐ 6 EXEMPTION ☐ 99 OTHER

VI. LEGAL NOTIFICATION AND BILLING ADDRESS

Legal notification and billing will be sent to the tank owner unless box I or II is checked.

CHECK ONE BOX INDICATING WHICH ABOVE ADDRESS SHOULD BE USED FOR LEGAL NOTIFICATIONS AND BILLING: I. ☐ II. ☐ III. ☐

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE)	APPLICANT'S TITLE	DATE MONTH/DAY/YEAR

LOCAL AGENCY USE ONLY

COUNTY # ☐☐ JURISDICTION # ☐☐☐ FACILITY # ☐☐☐☐☐☐

LOCATION CODE - *OPTIONAL*	CENSUS TRACT # - *OPTIONAL*	SUPVISOR - DISTRICT CODE - *OPTIONAL*

THIS FORM MUST BE ACCOMPANIED BY AT LEAST (1) OR MORE PERMIT APPLICATION - FORM B, UNLESS THIS IS A CHANGE OF SITE INFORMATION ONLY.

FORM A (5-91) FORM933A S

INSTRUCTIONS FOR COMPLETING FORM "A"

GENERAL INSTRUCTIONS:

1. One FORM "A" shall be completed for all NEW PERMITS, PERMIT CHANGES or any FACILITY/SITE INFORMATION CHANGES.
2. SUBMIT ONLY ONE (1) FORM "A" for a Facility/Site, regardless of the number of tanks located at the site.
3. This form should be completed by either the PERMIT APPLICANT or the LOCAL AGENCY UNDERGROUND TANK INSPECTOR.
4. Please type or print clearly all requested information.
5. Use a hard point writing instrument, you are making 3 copies.

TOP OF FORM: "MARK ONLY ONE ITEM"

Mark an (X) in the box next to the item that best describes the reason the form is being completed.

I. FACILITY/SITE INFORMATION & ADDRESS (MUST BE COMPLETED)

1. Record name and address (physical location) of the underground tank(s).
   NOTE: Address MUST have a valid physical location including city, state, and zip code.
   P.O. BOX NUMBERS ARE NOT ACCEPTABLE.
   Include nearest cross street and name of the operator.
2. Phone number must have an area code. If the night number is the same, write "SAME" in proper location.
3. Check the appropriate box for TYPE OF BUSINESS OWNERSHIP (ex. CORPORATION, INDIVIDUAL, etc.)
4. Check the appropriate box for TYPE OF BUSINESS.
5. If Facility/Site is located within an Indian reservation or other Indian trust lands, check the box marked "YES".
6. Indicate the NUMBER of TANKS at this SITE.
7. Record the E.P.A. ID # or write "NONE" in the space provided.

II. PROPERTY OWNER INFORMATION & ADDRESS (MUST BE COMPLETED)

Complete all items in this section, unless all items are the same as SECTION 1; if the same, write "SAME AS SITE" across this section. Be sure to check PROPERTY OWNERSHIP TYPE box.

III. TANK OWNER INFORMATION & ADDRESS (MUST BE COMPLETED)

Complete all items in this section, unless all items are the same as SECTION 1; If the same, write "SAME AS SITE" across this section. Be sure to check TANK OWNERSHIP TYPE box.

IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER (MUST BE COMPLETED)

Enter your Board of Equalization (BOE) UST storage fee account number which is required before your permit application can be processed. Registration with the BOE will ensure that you will receive a quarterly storage fee return in reporting the $0.006 (6 mills) per gallon fee due on the number of gallons placed in your USTs. The BOE will code persons exempt from paying the storage fee so returns will not be sent. If you do not have an account number with the BOE or if you have any questions regarding the fee or exemptions, please call the BOE at 916-323-9555 or write to the BOE at the following address: Board of Equalization, Environmental Fees Unit, P.O. Box 942879, Sacramento, CA 94279-0001.

V. PETROLEUM UST FINANCIAL RESPONSIBILITY (MUST BE COMPLETED)

Identify the method(s) used by the owner and/or operator in meeting the Federal and State financial responsibility requirements. USTs owned by any Federal or State agency are exempt from this requirement.

VI. LEGAL NOTIFICATION AND BILLING ADDRESS

Check ONE BOX for the address that will be used for BOTH LEGAL AND BILLING NOTIFICATIONS.

APPLICANT MUST SIGN AND DATE THE FORM AS INDICATED.

INSTRUCTION FOR THE LOCAL AGENCIES

The county and jurisdiction numbers are predetermined and can be obtained by calling the State Board (916)739-2421. The facility number may be assigned by the local agency; however, this number must be numerical and cannot contain any alphabetical. If the local agency prefers the State Board to assign the facility number, please leave it blank.

IT IS THE RESPONSIBILITY OF THE LOCAL AGENCY THAT INSPECTS THE FACILITY TO VERIFY THE ACCURACY OF THE INFORMATION. THIS APPLICATION CANNOT BE PROCESSED IF THE BOE ACCOUNT NUMBER IS NOT FILLED IN. THE LOCAL AGENCY IS RESPONSIBLE FOR THE COMPLETION OF THE "LOCAL AGENCY USE ONLY" INFORMATION BOX AND FOR FORWARDING ONE FORM "A" AND ASSOCIATED FORM "B"(s) TO THE FOLLOWING ADDRESS.

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
C/O S.W.E.E.P.S.
DATA PROCESSING CENTER
P.O. BOX 527
PARAMOUNT, CA 90723

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

UNDERGROUND STORAGE TANK PERMIT APPLICATION - FORM B

COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM.

MARK ONLY ONE ITEM: ☐ 1 NEW PERMIT ☐ 2 INTERIM PERMIT ☐ 3 RENEWAL PERMIT ☐ 4 AMENDED PERMIT ☐ 5 CHANGE OF INFORMATION ☐ 6 TEMPORARY TANK CLOSURE ☐ 7 PERMANENTLY CLOSED ON SITE ☐ 8 TANK REMOVED

DBA OR FACILITY NAME WHERE TANK IS INSTALLED:

I. TANK DESCRIPTION
COMPLETE ALL ITEMS – SPECIFY IF UNKNOWN

A. OWNER'S TANK I. D. #	B. MANUFACTURED BY:
C. DATE INSTALLED (MO/DAY/YEAR)	D. TANK CAPACITY IN GALLONS:

II. TANK CONTENTS
IF A-1 IS MARKED, COMPLETE ITEM C.

A. ☐ 1 MOTOR VEHICLE FUEL ☐ 2 PETROLEUM ☐ 3 CHEMICAL PRODUCT ☐ 4 OIL ☐ 80 EMPTY ☐ 85 UNKNOWN

B. ☐ 1 PRODUCT ☐ 2 WASTE

C. ☐ 1a REGULAR UNLEADED ☐ 1b PREMIUM UNLEADED ☐ 2 LEADED ☐ 3 DIESEL ☐ 4 GASAHOL ☐ 5 JET FUEL ☐ 6 AVIATION GAS ☐ 7 METHANOL ☐ 99 OTHER (DESCRIBE IN ITEM D. BELOW)

D. IF (A-1) IS NOT MARKED, ENTER NAME OF SUBSTANCE STORED C. A. S. # :

III. TANK CONSTRUCTION
MARK ONE ITEM ONLY IN BOXES A, B, AND C, AND ALL THAT APPLIES IN BOX D AND E

A. TYPE OF SYSTEM: ☐ 1 DOUBLE WALL ☐ 2 SINGLE WALL ☐ 3 SINGLE WALL WITH EXTERIOR LINER ☐ 4 SECONDARY CONTAINMENT (VAULTED TANK) ☐ 85 UNKNOWN ☐ 99 OTHER

B. TANK MATERIAL (Primary Tank): ☐ 1 BARE STEEL ☐ 2 STAINLESS STEEL ☐ 3 FIBERGLASS ☐ 4 STEEL CLAD W/ FIBERGLASS REINFORCED PLASTIC ☐ 5 CONCRETE ☐ 6 POLYVINYL CHLORIDE ☐ 7 ALUMINUM ☐ 8 100% METHANOL COMPATIBLE W/FRP ☐ 9 BRONZE ☐ 10 GALVANIZED STEEL ☐ 85 UNKNOWN ☐ 99 OTHER

C. INTERIOR LINING: ☐ 1 RUBBER LINED ☐ 2 ALKYD LINING ☐ 3 EPOXY LINING ☐ 4 PHENOLIC LINING ☐ 5 GLASS LINING ☐ 6 UNLINED ☐ 85 UNKNOWN ☐ 99 OTHER
IS LINING MATERIAL COMPATIBLE WITH 100% METHANOL ? YES ___ NO ___

D. CORROSION PROTECTION: ☐ 1 POLYETHYLENE WRAP ☐ 2 COATING ☐ 3 VINYL WRAP ☐ 4 FIBERGLASS REINFORCED PLASTIC ☐ 5 CATHODIC PROTECTION ☐ 81 NONE ☐ 85 UNKNOWN ☐ 99 OTHER

E. SPILL AND OVERFILL: SPILL CONTAINMENT INSTALLED (YEAR) _____ OVERFILL PREVENTION EQUIPMENT INSTALLED (YEAR) _____

IV. PIPING INFORMATION
CIRCLE A IF ABOVE GROUND OR U IF UNDERGROUND, BOTH IF APPLICABLE

A. SYSTEM TYPE	A U 1 SUCTION	A U 2 PRESSURE	A U 3 GRAVITY	A U 99 OTHER			
B. CONSTRUCTION	A U 1 SINGLE WALL	A U 2 DOUBLE WALL	A U 3 LINED TRENCH	A U 85 UNKNOWN	A U 99 OTHER		
C. MATERIAL AND CORROSION PROTECTION	A U 1 BARE STEEL	A U 2 STAINLESS STEEL	A U 3 POLYVINYL CHLORIDE (PVC)	A U 4 FIBERGLASS PIPE			
	A U 5 ALUMINUM	A U 6 CONCRETE	A U 7 STEEL W/ COATING	A U 8 100% METHANOL COMPATIBLE W/FRP			
	A U 9 GALVANIZED STEEL	A U 10 CATHODIC PROTECTION	A U 85 UNKNOWN	A U 99 OTHER			
D. LEAK DETECTION	☐ 1 AUTOMATIC LINE LEAK DETECTOR	☐ 2 LINE TIGHTNESS TESTING	☐ 3 INTERSTITIAL MONITORING	☐ 99 OTHER			

V. TANK LEAK DETECTION

☐ 1 VISUAL CHECK ☐ 2 INVENTORY RECONCILIATION ☐ 3 VADOZE MONITORING ☐ 4 AUTOMATIC TANK GAUGING ☐ 5 GROUND WATER MONITORING ☐ 6 TANK TESTING ☐ 7 INTERSTITIAL MONITORING ☐ 81 NONE ☐ 85 UNKNOWN ☐ 99 OTHER

VI. TANK CLOSURE INFORMATION

1. ESTIMATED DATE LAST USED (MO/DAY/YR)	2. ESTIMATED QUANTITY OF SUBSTANCE REMAINING _____ GALLONS	3. WAS TANK FILLED WITH INERT MATERIAL ? YES ☐ NO ☐

THIS FORM HAS BEEN COMPLETED UNDER PENALTY OF PERJURY, AND TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT

APPLICANT'S NAME (PRINTED & SIGNATURE)	DATE

LOCAL AGENCY USE ONLY
THE STATE I.D. NUMBER IS COMPOSED OF THE FOUR NUMBERS BELOW

STATE I.D.# COUNTY # ☐☐ JURISDICTION # ☐☐☐ FACILITY # ☐☐☐☐☐☐ TANK # ☐☐☐☐☐☐

PERMIT NUMBER	PERMIT APPROVED BY/DATE	PERMIT EXPIRATION DATE

FORM B (7-91) THIS FORM MUST BE ACCOMPANIED BY A PERMIT APPLICATION - FORM A, UNLESS A CURRENT FORM A HAS BEEN FILED.

INSTRUCTIONS FOR COMPLETING FORM "B"

GENERAL INSTRUCTIONS:

1. One FORM "B" shall be completed for each tank for all NEW PERMITS, PERMIT CHANGES, REMOVALS and/or any other TANK INFORMATION CHANGE.
2. This form should be completed by either the PERMIT APPLICANT or the LOCAL AGENCY UNDERGROUND TANK INSPECTOR.
3. Please type or print clearly all requested information.
4. Use a hard point writing instrument, you are making 3 copies.

TOP OF FORM: "MARK ONLY ONE ITEM"

1. Mark an (X) in the box next to the item that best describes the reason the form is being completed.
2. Indicate the DBA or Facility name where the tank is installed.

I. TANK DESCRIPTION - COMPLETE ALL ITEMS - IF UNKNOWN - SO SPECIFY

A. Indicate owners tank ID # - If there is a tank number that is used by the owner to identify the tank (ex. AU70789).
B. Indicate the name of the company that manufactured the tank (ex. ACME TANK MFG.).
C. Indicate the year the tank was installed (ex. 1987).
D. Indicate the tank capacity in gallons (ex. 25,000 or 10,000 etc.).

II. TANK CONTENTS

A. 1. If MOTOR VEHICLE FUEL, check box 1 and complete items B & C.
2. If not MOTOR VEHICLE FUEL, check the appropriate box in section A and complete items B & D.
B. Check the appropriate box.
C. Check the type of MOTOR VEHICLE FUEL (if box 1 is checked in A).
D. Print the chemical name of the hazardous substance stored in the tank and the C.A.S.#. (Chemical Abstract Service number). If box 1 is NOT checked in A.

III. TANK CONSTRUCTION - MARK ONE ITEM ONLY IN BOX A, B, C & D

1. Check only one item in TYPE OF SYSTEM, TANK MATERIAL, INTERIOR LINING and CORROSION PROTECTION.
2. If OTHER, print in the space provided.

IV. PIPING INFORMATION

1. Circle A if above ground; circle U if underground; and circle both if applicable.
2. If UNKNOWN, circle; or if OTHER, print in space provided.
3. Indicate the LEAK DETECTION system(s) used to comply with the monitoring requirement for the piping.

V. TANK LEAK DETECTION

1. Indicate the LEAK DETECTION system(s) used to comply with the monitoring requirements for the tank.

VI. INFORMATION ON TANK PERMANENTLY CLOSED IN PLACE

1. ESTIMATED DATE LAST USED - MONTH/YEAR (January, 1986 or 01/88).
2. ESTIMATED QUANTITY of HAZARDOUS SUBSTANCE remaining in the tank (in Gallons).
3. WAS TANK FILLED WITH INERT MATERIAL? Check 'Yes' or 'NO'.

APPLICANT MUST SIGN AND DATE THIS FORM AS INDICATED.

INSTRUCTION FOR THE LOCAL AGENCIES

The state underground storage tank identification number is composed of the two digit county number, the three digit jurisdiction number, the six digit facility number and the six digit tank number. The county and jurisdiction numbers are predetermined and can be obtained by calling the State Board (916)739-2421. The facility number must be the same as shown in form "A". The tank number may be assigned by the local agency; however, this number must be numerical and cannot contain an alphabet. If the local agency prefers the State Board to assign the tank number, please leave it blank.

IT IS THE RESPONSIBILITY OF THE LOCAL AGENCY THAT INSPECTS THE FACILITY TO VERIFY THE ACCURACY OF THE INFORMATION. THE LOCAL AGENCY IS RESPONSIBLE FOR THE COMPLETION OF THE "LOCAL AGENCY USE ONLY" INFORMATION BOX AND FOR FORWARDING ONE FORM "A" AND ASSOCIATED FORM "B"(s) TO THE FOLLOWING ADDRESS.

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
C/O S.W.R.C.P.S.
DATA PROCESSING CENTER
P.O. BOX 527
PARAMOUNT, CA 90723

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

CERTIFICATION OF COMPLIANCE
FOR UNDERGROUND STORAGE TANK INSTALLATION
FORM C

COMPLETE A SEPARATE FORM FOR EACH TANK SYSTEM

I. SITE LOCATION

STREET _____

CITY _____ COUNTY _____

II. INSTALLATION (mark all that apply):

- ☐ The installer has been certified by the tank and piping manufacturers.
- ☐ The installation has been inspected and certified by a registered professional engineer.
- ☐ The installation has been inspected and approved by the implementing agency.
- ☐ All work listed on the manufacturer's installation checklist has been completed.
- ☐ The installation Contractor has been certified or licensed by the Contractors State License Board.
- ☐ Another method was used as allowed by the implementing agency. (Please specify.)

_____

III. OATH I certify that the information provided is true to the best of my belief and knowledge.

Tank Owner/Agent _____ Date _____

Print Name _____ Phone ( ) _____

Address _____

LOCAL AGENCY USE ONLY

STATE TANK I.D. #	COUNTY #	JURISDICTION #	FACILITY #	TANK #
	☐☐	☐☐☐	☐☐☐☐☐☐	☐☐☐☐☐☐☐

FORM C (7/91) THIS FORM MUST BE ACCOMPANIED BY PERMIT APPLICATION FORMS A & B UNLESS THEY HAVE BEEN FILED PREVIOUSLY FORMSC7

INSTRUCTIONS FOR COMPLETING FORM "C": TANK INSTALLATION CERTIFICATION

GENERAL INSTRUCTIONS

1. Each tank system must be in compliance with the federal and state technical standards, contained in law and regulations, for tank and piping installation.
2. This certification shall be completed by either the UST owner or representative.
3. One certification is required for each tank system. This form shall be used to make the required certification.
4. Please type or print clearly all requested information (for printing, please use a hard point writing instrument).
5. Submit the completed certification to the appropriate Local Implementing Agency.

I. INSTALLATION: MARK ALL OF THE ITEMS THAT APPLY TO INDICATE THAT THE INSTALLATION REQUIREMENTS ARE MET.

II. OATH: THE TANK OWNER OR AGENT SHALL CERTIFY, BY SIGNING THE CERTIFICATION, THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT. THE PERSON'S NAME SHOULD BE PRINTED UNDER THE SIGNATURE.

[The next page is 941.]

§ 23–2720. Additional Definitions.

Unless the context clearly requires otherwise, the following definitions shall apply to terms used in this Article.

"Corrective action" means any activity necessary to investigate and analyze the effects of an unauthorized release; propose a cost–effective plan to adequately protect human health, safety, and the environment and to restore or protect current and potential beneficial uses of water; and implement and evaluate the effectiveness of the activity(ies). Corrective action does not include any of the following activities:

(1) Detection, confirmation, or reporting of the unauthorized release; or

(2) Repair, upgrade, replacement or removal of the underground storage tank.

"Cost–effective" means actions that achieve similar or greater water quality benefits at an equal or lesser cost than other corrective actions.

"Federal act" means Subchapter IX (commencing with Section 6991) of Chapter 82 of Title 42 of the United States Code, as added by the Hazardous and Solid Waste Amendments of 1984 (P.L. 98–616), or as it may subsequently be amended or supplemented, and the regulations adopted pursuant thereto.

"Regulatory agency" means the Board, regional board, or any local, state, or federal agency which has responsibility for regulating underground storage tanks or which has responsibility for overseeing cleanup of unauthorized releases from underground storage tanks.

"Responsible party" means one or more of the following:

(1) Any person who owns or operates an underground storage tank used for the storage of any hazardous substance;

(2) In the case of any underground storage tank no longer in use, any person who owned or operated the underground storage tank immediately before the discontinuation of its use;

(3) Any owner of property where an unauthorized release of a hazardous substance from an underground storage tank has occurred; and

(4) Any person who had or has control over a underground storage tank at the time of or following an unauthorized release of a hazardous substance.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Section 25299.37, Health and Safety Code and 40 CFR Section 280.12.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2721. General Applicability of Article.

(a) Responsible parties for an underground storage tank shall comply with the requirements of this article whenever there is any reportable unauthorized release pursuant to Section 25295 of Chapter 6.7.

(b) Responsible parties shall take corrective action in compliance with the following requirements:

(1) all applicable waste discharge requirements or other order issued pursuant to Division 7, commencing with Section 13000 of the Porter–Cologne Water Quality Control Act (Water Code);

(2) all applicable state policies for water quality control adopted pursuant to Article 3 (commencing with Section 13140) of Chapter 3 of Division 7 of the Water Code;

(3) all applicable water quality control plans adopted pursuant to Article 3 (commencing with Section 13240) of Chapter 4 of Division 7 of the Water Code;

(4) all applicable requirements of Chapter 6.7 (commencing with Section 25280) and the regulations (Chapter 16, Title 23 CCR) promulgated thereto; and

(5) all applicable requirements of Article 4 of Chapter 6.75 of the Health and Safety Code, the applicable provisions of this Chapter, and the Federal act.

(c) When acting as the regulatory agency, the Board or regional board shall take appropriate action pursuant to Division 7, commencing with Section 13000 of the California Water Code, to ensure that corrective action complies with applicable policies for water quality control and applicable water quality control plans.

(d) The regulatory agency responsible for overseeing corrective action at an underground storage tank site shall comply with the applicable public participation provisions of Section 2728 of this Article.

(e) Upon completion of required corrective action, the regulatory agency shall inform the responsible party in writing that no further work is required at that time, based on available information. This written notice shall constitute agency concurrence on the completed corrective action.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Sections 25299.37, 25299.54, 25295 and 25298, Health and Safety Code and 40 CFR Section 280.67.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2722. Scope of Corrective Action.

(a) Corrective action includes one or more of the following phases:

(1) Preliminary Site Assessment Phase

(2) Soil and Water Investigation Phase;

(3) Corrective Action Plan Implementation Phase; and

(4) Verification Monitoring Phase.

(b) The responsible party shall take or contract for interim remedial actions, as necessary, to abate or correct the actual or potential effects of an unauthorized release. Interim remedial actions can occur concurrently with any phase of corrective action. Before taking interim remedial action, the responsible party shall notify the regulatory agency of the proposed action and shall comply with any requirements that the regulatory agency sets. Interim remedial actions include, but are not limited to, the following:

(1) removal of free product. Free product removal must comply with the applicable provisions of Section 2655 of Article 5;

(2) enhanced biodegradation to promote bacterial decomposition of contaminants;

(3) excavation and disposal of contaminated soil;

(4) excavation and treatment of contaminated soil;

(5) vacuum extraction of contaminants from soil or ground water; and

(6) pumping and treatment of ground water to remove dissolved contaminants.

(c) The responsible party shall submit a workplan to the regulatory agency responsible for overseeing corrective action at the underground storage tank site, under the conditions listed below. If no regulatory agency has assumed responsibility for overseeing corrective action, the responsible party shall submit the workplan to the regional board with jurisdiction for the site where the underground storage tank is or was located:

(1) for proposed activities under the Preliminary Site Assessment Phase, if directed by the regulatory agency; and

(2) before initiating any work in accordance with Sections 2725 and 2727 of this Article.

(d) The workplan shall include the proposed actions and a proposed schedule for their completion. The responsible party shall modify the workplan, as necessary, at the direction of the regulatory agency.

(e) In the interest of minimizing environmental contamination and promoting prompt cleanup, the responsible party may begin implementation of the proposed actions after the workplan has been submitted and before it has received agency concurrence. Implementation of the workplan may begin sixty (60) calendar days after submittal, unless the reponsible party is otherwise directed in writing by the regulatory agency. Before beginning these activities, the responsible party shall:

(1) notify the regulatory agency of the intent to initiate the proposed actions included in the workplan submitted; and

(2) comply with any conditions set by the regulatory agency, including mitigation of adverse consequences from cleanup activities.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Sections 25295, 25297, 25299.14, 25299.37 and 25299.78, Health and Safety Code and 40 CFR Sections 280.53 and 280.60 through 280.66, and Section 13267 Water Code.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2723. Preliminary Site Assessment Phase.

(a) The Preliminary Site Assessment Phase includes, at a minimum, initial site investigation, initial abatement actions and initial site characterization in accordance with Sections 2652, 2653, and 2654 of Article 5 and any interim remedial actions taken in accordance with Section 2722(b) of this Article.

(b) Implementation of any of the interim remedial actions or any of the activities included in the Preliminary Site Assessment Phase shall constitute initiation of corrective action.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Sections 25295, 25298 and 25299.37, Health and Safety Code and 40 CFR Sections 280.61 and 280.62.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2724. Conditions That Require Soil and Water Investigation.

The responsible party shall conduct investigations of the unauthorized release, the release site, and the surrounding area possibly affected by the unauthorized release, if any of the following conditions exists:

(1) There is evidence that surface water or ground water has been or may be affected by the unauthorized release;

(2) Free product is found at the site where the unauthorized release occurred or in the surrounding area;

(3) There is evidence that contaminated soils are or may be in contact with surface water or ground water; or

(4) The regulatory agency requests an investigation, based on the actual or potential effects of contaminated soil or ground water on nearby surface water or ground water resources or based on the increased risk of fire or explosion.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Section 25299.37, Health and Safety Code and 40 CFR Sections 280.61 through 280.64

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2725. Soil and Water Investigation Phase.

(a)The Soil and Water Investigation Phase includes the collection and analysis of data necessary to assess the nature and vertical and lateral extent of the unauthorized release and to determine a cost–effective method of cleanup.

(b) Using information obtained during the investigation, the responsible party shall propose a Corrective Action Plan. The Corrective Action Plan shall consist of those activities determined to be cost–effective.

(c) The responsible party shall submit the Corrective Action Plan to the regulatory agency for review and concurrence. The regulatory agency shall concur with the Corrective Action Plan after determining that implementation of the plan will adequately protect human health, safety and the environment and will restore or protect current or potential beneficial uses of water. The responsible party shall modify the Corrective Action Plan in response to a final regulatory agency directive.

(d) The Corrective Action Plan shall include the following elements:

(1) an assessment of the impacts listed in subsection (e) of this Section;

(2) a feasibility study, in accordance with subsection (f) of this Section; and

(3) applicable cleanup levels, in accordance with subsection (g) of this Section.

(e) An assessment of the impacts shall include, but is not limited to, the following:

(1) The physical and chemical characteristics of the hazardous substance or its constituents, including their toxicity, persistence, and potential for migration in water, soil, and air;

(2) The hydrogeologic characteristics of the site and the surrounding area where the unauthorized release has migrated or may migrate;

(3) The proximity and quality of nearby surface water or ground water, and the current and potential beneficial uses of these waters;

(4) The potential effects of residual contamination on nearby surface water and ground water; and

(f) The responsible party shall conduct a feasibility study to evaluate alternatives for remedying or mitigating the actual or potential adverse effects of the unauthorized release. Each alternative shall be evaluated for cost–effectiveness, and the responsible party shall propose to implement the most cost–effective corrective action.

(1) For all sites, each recommended alternative shall be designed to mitigate nuisance conditions and risk of fire or explosion;

(2) For sites where the unauthorized release affects or threatens waters with current or potential beneficial uses designated in water quality control plans, the feasibility study shall also identify and evaluate at least two alternatives for restoring or protecting these beneficial uses;

(3) For sites where the unauthorized release affects or threatens waters with no current or potential beneficial uses designated in water quality control plans, the feasibility study shall identify and evaluate at least one alternative to satisfy paragraph (1) of this subsection.

(g) Cleanup levels for ground or surface waters, affected or threatened by the unauthorized release, shall comply with the requirements of Section 2721(b) and shall meet the following requirements:

(1) For waters with current or potential beneficial uses for which numerical objectives have been designated in water quality control plans, the responsible party shall propose at least two alternatives to achieve these numerical objectives;

(2) For waters with current or potential beneficial uses for which no numerical objectives have been designated in water quality control plans, the responsible party shall recommend target cleanup levels for long–term corrective actions to the regulatory agency for concurrence. Target cleanup levels shall be based on the impact assessment, prepared in accordance with subsection (e) of this Section.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Sections 25299.37 and 25299.57, Health and Safety Code.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2726. Corrective Action Plan Implementation Phase.

(a) The Corrective Action Plan Implementation Phase consists of carrying out the cost–effective alternative selected during the Soil and Water Investigation Phase for remediation or mitigation of the actual or potential adverse effects of the unauthorized release.

(b) Upon concurrence with the Corrective Action Plan or as directed by the regulatory agency, the responsible party shall implement the Corrective Action Plan. The responsible party shall monitor, evaluate, and report the results of implementation of the Corrective Action Plan on a schedule agreed to by the regulatory agency.

(c) In the interest of minimizing environmental contamination and promoting prompt cleanup, the responsible party may begin cleanup of soil and water after the Corrective Action Plan has been submitted and before it has received agency concurrence. Implementation of the Corrective Action Plan may begin sixty (60) calendar days after submittal,

unless the responsible party is otherwise directed in writing by the regulatory agency. Before beginning this cleanup, the responsible party shall:

(1) notify the regulatory agency of its intention to begin cleanup; and

(2) comply with any conditions set by the regulatory agency, including mitigation of adverse consequences from cleanup activities.

(d) The responsible party shall modify or suspend cleanup activities when directed to do so by the regulatory agency.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Section 25299.37, Health and Safety Code and 40 CFR Sections 280.65 and 280.66.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2727. Verification Monitoring Phase.

(a) The Verification Monitoring Phase includes all activities required to verify implementation of the Corrective Action Plan and evaluate its effectiveness.

(b) The responsible party shall verify completion of the Corrective Action Plan through sampling or other monitoring of soil and/or water for such period of time and intervals agreed to by the regulatory agency. Using the monitoring results obtained pursuant to this Section and any other relevant data obtained pursuant to this Article, the responsible party shall evaluate the effectiveness of the site work.

(c) The responsible party shall submit monitoring data and an evaluation of the results of such monitoring in writing on a schedule and for a duration agreed to by the regulatory agency.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Section 25299.37, Health and Safety Code and 40 CFR Section 280.65.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2728. Public Participation.

(a) For each confirmed unauthorized release that requires a Corrective Action Plan, the regulatory agency shall inform the public of the proposed activities contained in the Corrective Action Plan. This notice shall include at least one of the following:

(1) publication in a regulatory agency meeting agenda;

(2) public notice posted in a regulatory agency office;

(3) public notice in a local newspaper;

(4) block advertisements;

(5) a public service announcement;

(6) letters to individual households; or

(7) personal contacts with the affected parties by regulatory agency staff.

(b) The regulatory agency shall ensure that information and decisions concerning the Corrective Action Plan are made available to the public for inspection upon request.

(c) Before concurring with a Corrective Action Plan, the regulatory agency may hold a public meeting when requested by any member of the public, if there is sufficient public interest on the proposed Corrective Action Plan.

(d) Upon completion of corrective action, the regulatory agency shall give public notice that complies with subsection (a) of this Section, if both of the following conditions apply:

(1) Implementation of the Corrective Action Plan does not achieve the cleanup levels established in the Corrective Action Plan; and

(2) The regulatory agency does not intend to require additional corrective action, except for monitoring in accordance with Section 2727.

(e) The regulatory agency shall comply with all applicable provisions of the California Environmental Quality Act, Public Resources Code, commencing with Section 21000.

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Sections 25299.37 and 25299.78, Health and Safety Code and 40 CFR Sections 280.65 through 280.67.

HISTORY

1. New section filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9).
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2803. Applicability.

(a) The regulations in this Chapter implement portions of Division 20, Chapter 6.75, of the California Health and Safety Code, commencing at Section 25299.10. Except as otherwise specifically provided, this Chapter applies to owners and operators of underground storage tanks as defined by Section 25281(x) of the California Health and Safety Code which contain or have contained petroleum.

(b) This Chapter also applies in part to owners of "residential tanks" as this term is defined in Section 2804 of Article 2 of this Chapter.

(c) This Chapter also establishes financial responsibility requirements for certain owners and operators (Article 3).

(d) This Chapter also establishes an Underground Storage Tank Cleanup Fund Program and process which helps eligible owners or operators pay for corrective action and third party compensation claim costs that result from an unauthorized release of petroleum from an underground storage tank (Article 4).

(e) This Chapter also establishes a process for appeal of staff action to the Board (Article 5).

NOTE: Authority cited: Section 25299.77, Health and Safety Code. Reference: Sections 25299.10 and 25299.11, Health and Safety Code

HISTORY

1. New chapter 18 (sections 2803–2814.3) filed 12–2–91 as an emergency; operative 12–2–91. Text remains in effect uninterrupted pursuant to Health and Safety Code section 25299.77 (Register 92, No. 9). For prior history of chapter 18, see Register 81, No. 28.
2. Editorial correction of printing errors in HISTORY 1. (Register 92, No. 43).

§ 23–2804. Definitions.

Unless the context clearly requires otherwise, the terms used in this Chapter shall have the following meanings:

"Accident" means an unintentional and unexpected event or happening.

"Annual aggregate amount" means the total amount of financial responsibility that is required to cover all unauthorized releases that might occur in one year.

"Board" means the State Water Resources Control Board.

"Bodily injury" means physical injury, sickness, disease, including death, sustained by any person as a proximate result of an unauthorized release from an underground storage tank.

"Certification" means a written statement signed by a claimant attesting to the accuracy and completeness of the facts contained in the written statement.

"CFR" means the Code of Federal Regulations.

"Chief financial officer" means the person who normally prepares, verifies or certifies financial information on behalf of an owner or operator. The term means the owner or operator of the underground storage tank if no other individual is designated as the chief financial officer.

"Claimant" means an owner or operator who files a claim against the Fund.

"Corrective action" means any activity necessary to investigate and analyze the effects of an unauthorized release; propose a cost–effective plan to adequately protect human health, safety, and the environment and to restore or protect current and potential beneficial uses of water; and implement and evaluate the effectiveness of the activity(ies). Corrective action does not include any of the following activities:

(a) Detection, confirmation, or reporting of the unauthorized release; or,

(b) Repair, upgrade, replacement or removal of an underground storage tank or its associated equipment.

"Designated representative" means any person that provides financing for corrective action or third party compensation claim costs. The term

includes the state, any department or agency thereof, or the federal government.

"Division" means the State Water Resources Control Board, Division of Clean Water Programs, or any other Division of the board authorized to administer the Fund.

"Facility" means any one, or combination of, underground storage tanks used by a person at a single location or site.

"Federal Act" means Subchapter IX (commencing with Section 6991) of Chapter 82 of Title 42 of the United State Code, as added by the Hazardous and Solid Waste Amendments of 1984 (P.L. 98–616), as it may subsequently be amended or supplemented, and the regulations adopted pursuant thereto. The Federal Act is incorporated herein by reference.

"Financial responsibility" means the applicable state and federal financial responsibility requirements for petroleum underground storage tanks. These requirements are established by:

(a) Title 40 CFR, Part 280, Subpart H, commencing with Section 280.90;

(b) Section 25292.2 of Chapter 6.7 of the California Health and Safety Code;

(c) Article 3 of Chapter 6.75 of the California Health and Safety Code commencing with Section 25299.30; and

(d) Article 3 of this Chapter.

"Force account" means use by a local governmental entity of its own forces to accomplish work.

"Fund" means the Underground Storage Tank Cleanup Fund created pursuant to Section 25299.50 of the California Health and Safety Code.

"Gross negligence" means any act or failure to act by the owner or operator, its employees, agents, or any other person under the owner's or operator's supervision or control, in reckless disregard of the consequences, which causes or allows an unauthorized release from an underground storage tank to occur or to continue.

"Heating oil" means petroleum as defined in 40 CFR, Part 280, Federal Register, Volume 53, Number 185, page 37117, namely: No.1, No.2, No.4–light, No.4–heavy, No.5–light, No.5–heavy, and No.6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils.

"Initiation of corrective action" means actual commencement of corrective action work by or under the authority of an owner or operator.

"Local agency" means the department, office, or other agency of a county or city designated pursuant to Section 25283 of Chapter 6.7 of the California Health and Safety Code.

"Occurrence" means an accident which results in an unauthorized release of petroleum from an underground storage tank. Unauthorized releases caused by several sources but which require only a single site investigation shall be considered as one occurrence. An unauthorized release subsequent to a previous unauthorized release at the same site shall only be considered a separate occurrence if site investigation and corrective action, exclusive of verification monitoring, have been completed for the prior unauthorized release.

"Operator" means any person in control of, or having responsibility for the daily operation of an underground storage tank containing petroleum. The term includes any city, county, or district, or any agency or department thereof, but does not include the state or any agency or department thereof, or the federal government.

"Owner" means the owner of an underground storage tank containing petroleum. The term includes any city, county, or district, or any agency or department thereof, but does not include the state or any agency or department thereof, or the federal government. The term includes any person who has legal title to an underground storage tank and any owner of real property who is a de facto owner of an underground storage tank located on such property.

"Permit" means a written authorization issued under Chapter 6.7 of the California Health and Safety Code and includes but is not limited to the permit required pursuant to Section 25284 for an owner or operator to operate an underground storage tank.

"Person" means an individual, trust, firm, joint stock company, corporation, or other entity, including a government corporation, partnership, or association. The term includes any city, county or district, or any agency or department thereof but does not include the state, any department or agency thereof, or the federal government.

"Petroleum" means crude oil, or any fraction thereof, which is liquid at standard conditions of temperature and pressure, which means at 60 degrees Fahrenheit and 14.7 pounds per square inch absolute.

"Petroleum marketing facilities" means all facilities at which petroleum is produced or refined and all facilities from which petroleum is sold or transferred to other petroleum marketers or to the public.

"Petroleum marketing firms" means all firms owning petroleum marketing facilities. Firms owning other types of facilities with underground storage tanks as well as petroleum marketing facilities are considered to be petroleum marketing firms.

"Property damage" means loss, injury, or deterioration to a third party's real or personal property which is caused by an unauthorized release of petroleum from an underground storage tank.

"Regional Board" means a California Regional Water Quality Control Board.

"Regulatory agency" means the Board, a Regional Board, or any local, state, or federal agency which has responsibility or authority for regulating underground storage tanks or which has responsibility for cleanup or overseeing cleanup of unauthorized releases from underground storage tanks.

"Release" means any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from an underground storage tank into or on the waters of the state, the land, or the subsurface soils. The term does not include releases which are clearly attributable to spills and overfills occurring as a result of filling or emptying of a tank.

"Residence" means real property which is improved with an owner occupied single family dwelling or duplex.

"Residential tank" means an underground storage tank which meets all of the following conditions:

(a) The tank is located on property zoned only for residential use, or the tank is located at the residence of a person or persons, has a capacity of 1100 gallons or less, and been exclusively used since January 1, 1985, to store home heating oil for consumptive use on the premises where stored; and

(b) The property where the tank is or has been located since January 1, 1985, was not used for agricultural purposes on or after January 1, 1985; and

(c) The tank is not located on a farm and primarily used to store motor vehicle fuel for agricultural purposes or for resale; and

(d) The tank has not been used for agricultural purposes or to store petroleum for resale since January 1, 1985.

"Small business" means a business which complies with all of the following conditions. For a business that is no longer in operation, the business must have met the conditions at the time the business was last operated:

(a) The principal office is located in California;

(b) The officers of the business are domiciled in California;

(c) The business is independently owned and operated;

(d) The business is not dominant in its field of operation; and

(e) Gross revenues from the business do not exceed the limits established by Section 1896 of Title 2 of the California Code of Regulations.

"SWEEPS" means the Statewide Environmental Evaluation and Planning System administered by the California Association of Environmental Health Administrators.

"Tangible net worth" means the tangible assets that remain after deducting liabilities. Such assets do not include intangibles such as good will and rights in patents or royalties.

"Third party" means a person other than the owner or operator of the underground storage tank which is the subject of a claim.

"Third party compensation claim" means a claim for reimbursement from the Fund as a result of payment or incurrence of a court—approved

6. Amendment of subsection (e) filed 11–5–81; effective thirtieth day thereafter (Register 81, No. 45).
7. Amendment of subsections (b), (d)(2) and (3) and (f)(1) filed 2–22–82; effective thirtieth day thereafter (Register 82, No. 9).
8. Amendment of subsections (a)–(c) filed 7–27–82; effective thirtieth day thereafter (Register 82, No. 31).
9. Amendment filed 6–22–83; effective thirtieth day thereafter (Register 83, No. 26).
10. Amendment filed 9–7–84; effective thirtieth day thereafter (Register 84, No. 36).
11. Editorial correction of subsection (d) (Register 84, No. 46).
12. Amendment filed 7–20–87; operative 8–19–87 (Register 87, No. 30).
13. Amendment of subsection (c)(2) and new subsections (g)-(i) filed 11–30–88; operative 12–30–88 (Register 88, No. 51).
14. New subsection (j) filed 9–27–90; operative 10–27–90 (Register 90, No. 45).
15. Editorial correction of printing errors in subsections (e)(3) and (i) (Register 92, No. 12).

§ 13–1160.2. U.S. Department of Transportation Regulations.

(a) This article incorporates by reference portions of title 49, Code of Federal Regulations (49 CFR), part 107, parts 171 through 179, and part 393 to the extent specified in this article. Unless otherwise specified, all references to 49 CFR in this article are those regulations in effect on October 1, 1988.

(b) Provisions of Public Law 93–633, title 1, Hazardous Materials Act (49 USC 1801–1812), preempt any requirements of any state or political subdivision thereof inconsistent with federal regulations and relating to hazardous materials transported in commerce. The Office of Hazardous Materials Transportation, Research and Special Programs Administration, U.S. Department of Transportation, may except any material from being classed as hazardous or change any classification in accordance with authority granted that agency, and such action shall govern the application of this article.

(c) Limited Applications. 49 CFR parts 174 and 179 shall apply only as referenced in 49 CFR Parts 173, 177, and 178.

(d) Motor Carrier Safety Requirements. Provisions of 49 CFR 393.86 relating to rear end protection for tank vehicles apply as referenced in 49 CFR part 178, but 49 CFR parts 390 through 397 shall not otherwise apply to transportation subject to this article.

(e) Referenced Regulations. Copies of title 49, Code of Federal Regulations, can be obtained from:

SUPERINTENDENT OF DOCUMENTS
U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON, DC 20402

Copies of 49 CFR Part 107 and Parts 171 through 179 may also be obtained from:

ASSOCIATION OF AMERICAN RAILROADS
BUREAU OF EXPLOSIVES
50 F STREET, N.W.
WASHINGTON, DC 20001

Copies of 49 CFR Part 107, Parts 171 through 179, and Parts 390 through 397 may also be obtained from:

AMERICAN TRUCKING ASSOCIATIONS, INC.
SAFETY DEPARTMENT
2200 MILL ROAD
ALEXANDRIA, VA 22314

NOTE: Authority cited: Sections 2402.7 and 34501, Vehicle Code. Reference: Sections 2402.7 and 34501, Vehicle Code.

HISTORY

1. Amendment filed 12–21–77 as an emergency; designated effective 1–1–78. Certificate of Compliance included (Register 77, No. 52).
2. Amendment filed 7–8–81; effective thirtieth day thereafter (Register 81, No. 28).
3. Amendment filed 9–7–84; effective thirtieth day thereafter (Register 84, No. 36).
4. Amendment filed 7–20–87; operative 8–19–87 (Register 87, No. 30).
5. Amendment of subsection (a) filed 11–30–88; operative 12–30–88 (Register 88, No. 51).
6. Amendment of subsection (a) filed 9–27–90; operative 10–27–90 (Register 90, No. 45).

§ 13–1160.3. Definitions.

(a) "Cargo tank" means any tank permanently attached to, or a structural part of, a vehicle; or any bulk liquid or compressed gas packaging that is not permanently attached to a vehicle and by reason of its size, construction, or method of attachment is filled or emptied without removal from the vehicle. The term does not include tanks that furnish fuel for propulsion of motor vehicles, or auxiliary equipment on which they are installed, or any packaging fabricated to cylinder specifications.

(b) "Carrier" means any person who transports hazardous materials subject to this article.

(1) "For–hire carrier" means any carrier who renders a transportation service for reward or compensation.

(2) "Contract carrier" means any for–hire carrier who transports cargo tendered exclusively by shippers under special contract or contracts and whose services are not available to the public.

(3) "Private carrier" means any carrier who transports cargo for use in his/her occupation or for other purpose without reward or compensation.

(c) "Cylinder" means a pressure vessel designed for pressures higher than 40 psi absolute and having a circular cross section. It does not include a portable tank, multiunit tank car tank, cargo tank, or tank car.

(d) "Freight container" means a reusable container having a volume of 10.97 cu m (64 cu ft) or more, designed and constructed to permit being lifted with its contents intact and intended primarily for containment of packages in unit form.

(e) "Gross weight" means the weight of a packaging plus the weight of its contents.

(f) "Hazardous material" means any material capable of posing an unreasonable risk to health, safety, and property during transportation and so designated in 49 CFR Part 172 and defined by Part 173.

(g) "Overpack" means an enclosure (not intended for reuse) used by a single consignor to consolidate 2 or more packages for convenience in handling.

(h) "Package" means packaging plus its contents.

(i) "Packaging" means the assembly of 1 or more containers and any other components necessary to assure compliance with minimum packaging requirements. The term includes containers (other than freight containers and overpacks), portable tanks, cargo tanks, and multiunit tank car tanks.

(j) "Portable tank" means any packaging (except a cylinder having a capacity of less than 453.6 kg (1,000 lb) of water) with a capacity of over 416.3 li (110 gal) and designed primarily to be loaded into or on or temporarily attached to a vehicle, and equipped with skids, mounting, or accessories to facilitate handling. It does not include any cargo tank, tank car tank DOT–106A or 110A type tank, or trailers carrying DOT–3AX, –3AAX, or –3T cylinders.

(k) "Proper shipping name" means the designation for a hazardous commodity prescribed by 49 CFR 172.101 or 172.102 (when authorized).

(l) "Shipper" means any person who offers hazardous materials to another person for transportation.

(m) "Shipping paper" means the written description of the vehicle lading.

(n) The meanings of terms not defined above are adopted by reference to the Vehicle Code or 49 CFR, except as in the following terms used in Parts 171 through 179:

(1) "Motor vehicle" means vehicle.

(2) "Pole trailer" means pole or pipe dolly.

(3) "Common carrier" means any for–hire carrier other than a contract carrier.

NOTE: Authority and reference cited: Sections 2402.7 and 34501, Vehicle Code.

HISTORY

1. Amendment filed 12–21–77 as an emergency; designated effective 1–1–78. Certificate of Compliance included (Register 77, No. 52).

2. Amendment of subsection (j) filed 7–8–81; effective thirtieth day thereafter (Register 81, No. 28).
3. Amendment filed 6–22–83; effective thirtieth day thereafter (Register 83, No. 26).
4. Amendment of subsections (f) and (k) filed 7–20–87; operative 8–19–87 (Register 87, No. 30).

§ 13–1160.4. General Provisions.

(a) Shippers shall not offer and carriers shall not transport any shipment of a hazardous material not prepared for transportation in accordance with this Article.

(b) References to Statutes and Regulations. Any reference to provisions of these regulations or to statutes shall apply to all amendments and additions made to such regulatory or statutory provisions.

(c) Alternate Method of Compliance. Upon a finding that an alternate method of compliance provides protection to the public equal to or exceeding that afforded by compliance with provisions of this article, the department may authorize use of such alternate method subject to the following:

(1) Any alternate method of compliance shall be permitted only after application has been made to and written authorization obtained from the department.

(2) Written authorization shall be carried in each transporting vehicle or combination.

(3) No authorization for an alternate method of compliance shall be accorded any highway carrier subject to federal jurisdiction, nor shall such authorization apply to the preparation of hazardous materials for interstate transportation.

(4) No authorization for an alternate method of compliance shall be granted when a special permit or exemption has been issued by the U.S. Department of Transportation Materials Transportation Bureau authorizing the requested alternate method.

(d) Special Permits and Exemptions. Use of special permits and exemptions issued by the U.S. Department of Transportation Materials Transportation Bureau in accordance with 49 CFR, Part 107, shall be subject to the following conditions:

(1) Compliance with requirements of special permits or exemptions shall be deemed compliance with equivalent provisions of this article.

(2) Certificate of shipment preparation shall be deemed to include certification of compliance with any applicable requirements of special permits or exemptions.

(3) The use of special permits or exemptions shall be limited to the shippers or carriers specified or who become parties thereto, and the conditions of issuance.

(e) Inspection by Department. Carriers and shippers shall afford duly authorized employees of the department reasonable opportunity to enter terminals and other locations to determine compliance with the provisions of this article.

(f) Unsafe Transportation Prohibited. Authorized employees of the department shall declare and mark any vehicle out of service when the condition, securement, preparation of lading, filling, closures, or protective devices on cylinders and tanks would be hazardous to life and property during transportation.

(1) No carrier shall require or permit any person to operate nor shall any person operate any vehicle marked out–of–service until all necessary corrections have been completed.

(2) No person shall remove any out–of–service notice from any vehicle prior to the completion of all corrections required by the notice.

(g) Hazardous Materials Transportation License.

(1) The fee for a new license is one hundred dollars ($100) and the fee for a renewal license is seventy–five dollars ($75).

(2) The original valid license shall be kept at the licensee's place of business as indicated on the license and a legible copy shall be carried in any vehicle or combination of vehicles transporting hazardous materials and shall be presented to any traffic officer upon request.

(3) Carriers who have paid the license fee, may use either of the following as a temporary license for not more than 60 days when carried in the vehicle:

(A) A copy of the carrier's completed application for license to transport hazardous materials and a copy of the check or money order indicating payment of fee.

(B) A telegraphic money order receipt, or copy thereof, made payable to the California Highway Patrol, indicating payment of fee for license to transport hazardous materials.

(4) Federal, State, county, city, and city and county agencies, and other political subdivisions of the State including, but not limited to, school, irrigation, and fire protection districts are exempt from the licensing requirements of Vehicle Code Section 32000.5.

NOTE: Authority cited: Sections 32002 and 34501, Vehicle Code. Reference: Sections 2502, 32000.5 and 34501, Vehicle Code.

HISTORY

1. Amendment of subsection (e) filed 12–21–77 as an emergency; designated effective 1–1–78. Certificate of Compliance included (Register 77, No. 52).
2. Amendment of subsection (e) filed 1–20–78 as an emergency; effective upon filing (Register 78, No. 3).
3. Editorial correction to previous history note and designation of subsections (Register 78, No. 12).
4. Certificate of Compliance filed 3–21–78 (Register 78, No. 12).
5. New subsection (g) filed 2–22–82; effective thirtieth day thereafter (Register 82, No. 9).
6. Amendment filed 6–22–83; effective thirtieth day thereafter (Register 83, No. 26).
7. Repealer of subsection (g)(5) filed 9–7–84; effective thirtieth day thereafter (Register 84, No. 36).
8. Amendment of subsections (g)(3) and (g)(4) filed 7–20–87; operative 8–19–87 (Register 87, No. 30).
9. Amendment of subsection (a) filed 11–30–88; operative 12–30–88 (Register 88, No. 51).
10. Amendment of subsection (g)(3) filed 3–10–92; operative 4–9–92 (Register 92, No. 12).

§ 13–1160.5. Hazard Classification and Shipping Names.

Hazardous materials shall be classified and described (proper shipping name) in accordance with 49 CFR Parts 172 and 173.

NOTE: Authority and reference cited: Sections 2402.7 and 34501, Vehicle Code.

HISTORY

1. New section filed 9–7–84; effective thirtieth day thereafter (Register 84, No. 36).
2. Amendment filed 7–20–87; operative 8–19–87 (Register 87, No. 30).

§ 13–1161. Shipping Papers.

(a) Shippers and carriers shall comply with the shipping paper requirements contained in 49 CFR, Part 172, Subpart C and 49 CFR 177.817.

(b) Retention. Copies of shipping papers shall be retained by shippers and carriers for at least six months and shall be subject to inspection by any duly authorized employee of the department.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. Amendment filed 12–21–77 as an emergency; designated effective 1–1–78. Certificate of Compliance included (Register 77, No. 52).
2. Amendment of subsection (e) filed 1–20–78 as an emergency; effective upon filing (Register 78, No. 3).
3. Certificate of Compliance filed 3–21–78 (Register 78, No. 12).
4. Amendment of subsections (a), (d)(1) and (d)(3) filed 7–8–81; effective thirtieth day thereafter (Register 81, No. 28).
5. Amendment filed 2–22–82; effective thirtieth day thereafter (Register 82, No. 9).
6. Amendment of subsection (a) filed 9–7–84; effective thirtieth day thereafter (Register 84, No. 36).
7. Amendment of subsection (b) filed 7–20–87; operative 8–19–87 (Register 87, No. 30).
8. Repealer of subsections (a)–(e), new subsection (a) and relettering of subsection (f) to subsection (b) filed 11–30–88; operative 12–30–88 (Register 88, No. 51).

§ 13–1161.1. Shipping Certification.

(a) Shipper Certificate Required. Shippers shall not offer and initial carriers (other than private carriers) shall not accept for transportation

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hazardous materials in any form other than bulk shipments in cargo tanks furnished by the carrier, unless the shipper provides a signed certificate prepared in conformance with 49 CFR 172.204.

(b) Compliance with Other Requirements. Shipping certification shall be deemed to certify compliance with all requirements of Sections 1160.5, 1161.2, 1161.3, 1163, and 1163.1 of this title.

(c) Retention. Certificates need not be carried with the material enroute, however, copies of shipper certificates shall be retained for at least six months and shall be subject to inspection by any authorized employee of the department.

(d) Signature. Certificates shall be signed by a principal, officer, partner, or employee of the shipper or his agent, and must be legible. Typewritten or other mechanically produced signatures are acceptable.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. Amendment filed 12–21–77 as an emergency; designated effective 1–1–78. Certificate of Compliance included (Register 77, No. 52).
2. Amendment filed 7–8–81; effective thirtieth day thereafter (Register 81, No. 28).
3. Amendment filed 2–22–82; effective thirtieth day thereafter (Register 82, No. 9).
4. Amendment of subsections (a) and (b) filed 11–30–88; operative 12–30–88 (Register 88, No. 51).

§ 13–1161.2. Hazard Labels.

(a) Hazardous materials packagings shall be labeled in conformance with 49 CFR, Part 172, Subpart E.

(b) Conflicting Labels. No labels shall be used when they may be confused by reason of shape, size, or color with the standard labels prescribed by this section. This restriction shall not apply to packages labeled in compliance with requirements of the United Nations or the International Maritime Organization.

(c) Prohibition. Labels and decals prescribed by this section are prohibited on packages containing other than hazardous materials.

(d) Legibility. All labels and decals on packages shall be replaced before they become illegible. Carriers shall maintain a supply of labels and decals appropriate to the classes of transported materials.

NOTE: Authority and reference cited: Sections 2402.7 and 34501, Vehicle Code.

HISTORY

1. Amendment of subsection (c) filed 7–20–87; operative 8–19–87 (Register 87, No. 30).
2. Repealer of subsections (a)–(c), new subsection (a), relettering and amendment of subsection (d) to subsection (b) and relettering of subsections (e) and (f) to subsections (c) and (d) filed 11–30–88; operative 12–30–88 (Register 88, No. 51).

§ 13–1161.3. Marking.

All packages, including cargo and portable tanks, shall be marked with the proper shipping name and other information in the manner prescribed by Subpart D (commencing with Section 172.300), Part 172, 49 CFR.

§ 13–1162. Placards.

(a) Placards appropriate to the class and quantity of hazardous materials being transported shall be displayed on each vehicle, freight container and portable tank in accordance with 49 CFR, Part 172, Subpart F.

(b) Excusions. This section does not apply to the transportation of small quantities of explosives as provided by Vehicle Code Section 27903.

(c) Placards—Shipper Provided. Any shipper offering hazardous materials to a carrier in such quantity as to require vehicle placarding in accordance with this section shall provide the necessary placards, except when the vehicle into which hazardous materials are to be loaded is already correctly placarded. Shippers shall maintain a supply of placards appropriate to the classes of materials shipped.

NOTE: Authority and reference cited: Section 34501(b), Vehicle Code.

HISTORY

1. Amendment of subsection (g) filed 8–5–77 as an emergency; effective upon filing (Register 77, No. 32).
2. Certificate of Compliance filed 10–21–77 (Register 77, No. 43).
3. Amendment of subsection (g) filed 12–21–77 as an emergency; designated effective 1–1–78. Certificate of Compliance included (Register 77, No. 52).
4. New subsection (h) filed 1–20–78 as an emergency; effective upon filing (Register 78, No. 3).
5. Certificate of Compliance filed 3–21–78 (Register 78, No. 12).
6. Repealer of subsection (h) filed 7–8–81; effective thirtieth day thereafter (Register 81, No. 28).
7. Amendment filed 11–30–88; operative 12–30–88 (Register 88, No. 51).

§ 13–1162.1. Vehicle Safety Equipment.

(a) Fire Extinguishers.

(1) Every three–axle motortruck or combination of vehicles shall be equipped with 1 fire extinguisher with at least a 4B:C rating, except as provided in (2) or (3).

(2) Every motor vehicle shall be equipped with 1 fire extinguisher rated at least 10B:C if the motor vehicle, or any vehicle in a combination of which it is a part, transports cargo requiring placards (Section 1162). 2 fire extinguishers with a combined rating of 10B:C may be used, provided the rating of neither unit is less than 4B:C.

(3) Every tank vehicle or combination of tank vehicles used to transport flammable or combustible liquids shall be equipped with at least 1 fire extinguisher having a rating of not less than 20B:C. A fire extinguisher rated 12B:C and in service prior to July 1, 1970, may continue in use if it is in good working order. Fire extinguishers required by this subsection shall be serviced annually in accordance with Title 19, California Code of Regulations Chapter 1, Subchapter 3, commencing with Section 550.

(4) Each file extinguisher shall have been rated and labeled by one of the following test labs approved by the State Fire Marshal to test and label portable fire extinguishers for sale in California.

(A) Underwriter's Laboratories, Northbrook, Illinois. All sizes and classifications.

(B) Factory Mutual Research Corporation, Norwood, Massachusetts. Sizes 10B:C, 1A 10B:C, 2A 40B:C, 3A 40B:C, and 4A 80B:C fire extinguishers filled with Halon 1211 or Halon 1301.

(5) Fire extinguishers using any carbon tetrachloride, chlorbromomethane, or methyl bromide as extinguishing agents shall not be carried for use in or about any vehicle.

(6) Each fire extinguisher shall be securely mounted on a motor vehicle or trailer in a conspicuous place or in a clearly marked compartment and readily accessible.

(7) Fire extinguishers shall be maintained in efficient operating condition and shall be equipped with means for determining if they are fully charged.

(b) Emergency Warning Devices.

(1) Every vehicle or combination of vehicles transporting class A or B explosives shall carry 3 red emergency reflectors.

(2) A vehicle or combination of vehicles transporting class A or B explosives or a tank vehicle or combination used to transport flammable or combustible liquids shall not carry any flame–producing flare, fusee, oil lantern, or signal device.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. Amendment of subsection (a)(3) filed 11–5–81; effective thirtieth day thereafter (Register 81, No. 45).
2. Amendment filed 6–22–83; effective thirtieth day thereafter (Register 83, No. 26).
3. Amendment of subsection (a)(3) filed 5–4–84; effective thirtieth day thereafter (Register 84, No. 18).
4. Amendment of subsection (a) filed 10–28–86; effective thirtieth day thereafter (Register 86, No. 44).
5. Change without regulatory effect of subsection (a) (3) filed 2–8–88; operative 3–9–88 (Register 88, No. 7).

§ 13–1163. Shipment Preparation.

Shipment preparation of hazardous materials shall be governed by the following:

(a) Preparation. Shipments shall be prepared for transportation in accordance with provisions of 49 CFR Part 173, prescribed for each commodity by 49 CFR Part 172.

(b) Required Packagings. Only packagings authorized for shipment of specific commodities by 49 CFR Part 173, shall be used, except when otherwise authorized by Sections 1160.4(c) or (d) or 1163(f) of this title. Cargo tanks authorized by Title 19, California Code of Regulations, Section 1609.1 which were manufactured and placed into service prior to April 1, 1984, may be used to transport flammable liquids. Notwithstanding the provisions of 49 CFR 173.118a(b), all cargo tanks as defined in Section 34003, Vehicle Code, shall be subject to the provisions of 49 CFR 173.24 and 173.510.

(c) Leaking Packages. Package closures shall be adequate to prevent leakage of contents, and leaking packages shall not be transported.

(d) Limited Quantity Shipments. Shipments excepted, because of form or quantity, from requirements for labels, loading, or other requirements by 49 CFR Part 173, and identified as "limited quantity" in the shipping papers, are excepted from similar requirements in this article.

(e) Maintenance, Retesting, and Qualification of Containers. Maintenance, retesting, and qualification of containers shall be in accordance with 49 CFR Part 173, Subpart B and 49 CFR 177.814(a) and 177.824. Copies of certificates, reports, and records of retesting shall be subject to inspection by any authorized employee of the department. Pressure vessels constructed in accordance with the American Society of Mechanical Engineers Unfired Pressure Vessels Code shall comply with provisions related to repair of such vessels in Title 8, California Code of Regulations, Chapter 4, Subchapter 1 (Unfired Pressure Vessels Safety Orders).

(f) Anhydrous Ammonia in Cargo Tanks. Truck-mounted cargo tanks manufactured before 1970, or manufactured before 1972 and having a capacity of 2,000 gal or less, may be continued in service by private carriers to transport anhydrous ammonia between a filling point and a ranch, or between two locations on one ranch, or between ranches, and need not meet specifications in 49 CFR Part 178, provided:

(1) The tank meets design, construction, and operational requirements for anhydrous ammonia transportation tanks in the Unfired Vessels Safety Orders, Chapter 4, Title 8, California Code of Regulations; and

(2) The tank is operated by a carrier not subject to federal jurisdiction.

NOTE: Authority and reference cited: Sections 34019 and 34501, Vehicle Code.

HISTORY

1. New subsection (g) filed 5-12-77 as an emergency; effective upon filing (Register 77, No. 20).
2. Certificate of Compliance filed 7-15-77 (Register 77, No. 29).
3. Amendment of subsection (a) filed 12-21-77 as an emergency; designated effective 1-1-78. Certificate of Compliance included (Register 77, No. 52).
4. Amendment filed 7-26-78; designated effective 9-1-78 (Register 78, No. 30).
5. Amendment of subsection (g) filed 7-8-81; effective thirtieth day thereafter (Register 81, No. 28).
6. Amendment of subsection (e) filed 2-22-82; effective thirtieth day thereafter (Register 82, No. 9).
7. Amendment of subsection (b) filed 6-22-83; effective thirtieth day thereafter (Register 83, No. 26).
8. Amendment of subsections (b) and (e) filed 5-4-84; effective thirtieth day thereafter (Register 84, No. 18).
9. Amendment filed 7-20-87; operative 8-19-87 (Register 87, No. 30).
10. Change without regulatory effect of subsections (b), (e) and (f)(2)(A) filed 2-8-88; operative 3-9-88 (Register 88, No. 7).
11. Amendment of subsection (f) and repealer of subsection (g) filed 11-30-88; operative 12-30-88 (Register 88, No. 51).

§ 13-1163.1. Prohibited Transportation.

Shippers shall not offer and carriers shall not transport any of the following:

(a) Materials designated as "Forbidden" by 49 CFR, 172.101.

(b) Any package containing any materials or combinations of materials that is forbidden to be tendered for transportation by the provisions of 49 CFR 173.21.

(c) Hazardous materials prepared or offered for shipment in a manner specifically prohibited or restricted by 49 CFR, Part 173 or 177.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. Repealer and new section filed 11-30-88; operative 12-30-88 (Register 88, No. 51).

§ 13-1164. Vehicle Loading.

(a) Loading Requirements. Load securement, loading, and vehicle utilization shall comply with 49 CFR Part 177, Subparts B and C.

(b) Packages. Packages shall be secured during transit by use of bracing, chocks, or tiedowns to prevent their sliding, falling, tipping, or rolling with normal vehicle acceleration, deceleration, or change in direction. Ends, sidewalls, or doors of van bodies, or racks on flatbed vehicles shall not be relied upon for the securement of portable tanks.

(c) Piping, Valves and Closures. Piping and valves on tank vehicles shall not be installed in the cab. Valves shall be tightly closed and manhole covers shall be secured on cargo or portable tanks whether loaded or containing residue.

(d) Flatbed Vehicle Racks. Flatbed vehicles transporting poisons A or B shall be equipped with side and end racks.

(1) Racks shall be of a height and type which prevent packages from falling off the vehicle and shall be without openings larger than the smallest package.

(2) When poisons A or B are transported with other cargo, racks are required only at that part of the vehicle containing the poisons, and the other cargo may be used in lieu of end racks if it provides security equivalent to that of end racks.

(e) Unstable Mixtures. No material, including liquid, sludge, and slurry waste, shall be loaded into any packaging containing residual amounts of any other substance if the composition, form, or characteristics of the residual or added material, or the resultant mixture, is such that accelerated chemical reaction or decomposition could occur and result in any of the following:

(1) Pressure increase during transportation sufficient to actuate tank relief valves or rupture discs

(2) Heat buildup as evidenced by increased temperature on tank exterior surfaces or, for a material at ambient temperature when loaded, tank surface temperature uncomfortable to the touch

(3) Spontaneous combustion or detonation in the tank during or at any time after the filling operation

(4) Release of any hazardous materials.

(f) Hazardous Materials in Cab. Hazardous materials shall not be transported in the cab of any motortruck or truck tractor. In vehicles in which the cargo area and cab space are not separated, the cab includes any space forward of the back of the driver's seat.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. Amendment filed 7-8-81; effective thirtieth day thereafter (Register 81, No. 28).
2. New subsection (a)(7) and amendment of subsection (d) filed 2-22-82; effective thirtieth day thereafter (Register 82, No. 9).
3. Amendment filed 6-22-83; effective thirtieth day thereafter (Register 83, No. 26.)
4. Amendment filed 7-20-87; operative 8-19-87 (Register 87, No. 30).
5. Change without regulatory effect by moving text from Section 1165(d) to Section 1164(b) and from Section 1165(c) to Section 1164(c) filed 11-30-88; operative 12-30-88 (Register 88, No. 51).

§ 13-1165. Inhalation Hazard Transport Vehicle Emergency Equipment.

(a) Emergency self-contained breathing apparatus and communications equipment necessary for compliance with Section 32107 of the Vehicle Code shall be in conformance with the following:

(1) Self-contained breathing apparatus for each vehicle occupant shall be National Institute for Occupational Safety and Health (NIOSH) approved and have at least five minutes air supply and full face protection. Breathing apparatus shall be securely mounted in the cab of the motor vehicle in a conspicuous place or in a clearly marked compartment located within the cab and be readily accessible.

(2) Communications equipment shall be capable of immediate transmission and receipt of messages to/from the inhalation hazard transport vehicle driver and "911" communications centers located as close as practicable along the selected transportation route. Communication with the appropriate "911" communications center may be relayed through the

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shipper's or the carrier's terminal facility provided the relay facility monitors the transport vehicle communications link at all times and can monitor both the transport vehicle and "911" operator communications simultaneously.

(b) This section shall not apply to an inhalation hazard transport vehicle or combination of vehicles subject to Article 2 of this Chapter.

NOTE: Authority cited: Section 32102, Vehicle Code. Reference: Section 32107, Vehicle Code.

HISTORY

1. New subsection (e) filed 5-12-77 as an emergency; effective upon filing (Register 77, No. 20).
2. Certificate of Compliance filed 7-15-77 (Register 77, No. 29).
3. Amendment of subsection (b) filed 7-8-81; effective thirtieth day thereafter (Register 81, No. 28).
4. New subsection (e) and relettering and amendment of former subsection (e) to subsection (f) filed 2-22-82; effective thirtieth day thereafter (Register 82, No. 9).
5. Amendment filed 6-22-83; effective thirtieth day thereafter (Register 83, No. 26).
6. Repealer of subsection (e) filed 9-7-84; effective thirtieth day thereafter (Register 84, No. 36).
7. Repealer filed 11-30-88; operative 12-30-88 (Register 88, No. 51).
8. New section filed 11-25-91; operative 3-24-91 (Register 92, No. 8).

§ 13-1166. Reporting of Incidents Involving Hazardous Materials or Hazardous Wastes.

Incidents and accidents involving hazardous materials or hazardous wastes during transportation,loading or unloading, or temporary storage on carrier premises shall be reported as follows:

(a) Reports Required. A report is required of incidents that result in:

(1) Any spill or discharge of hazardous materials or hazardous wastes from any package container, or tanker

(2) Fatality, injury, or hospitalization of any person due to fire, explosion of, or exposure to any hazardous material or hazardous wasters

(3) Continuing danger to life, health or natural resources at the scene of the incident

(4) Estimated property damage exceeding $50,000

(b) Report Content and Routing. Carriers subject to federal regulations shall report incidents to the U.S. Department of Transportation, Office of Hazardous Materials Transportation, Washington, DC 20590, as required by 49 CFR 171.16, and shall send a legible copy of the detailed, written report within 30 days of the date of incident discovery to the Department of the California Highway Patrol, Hazardous Materials Section, Post Office Box 942898, Sacramento, CA 94298-0001. Carriers not subject to federal regulations or required to submit reports to the U.S. Department of Transportation shall, within 30 days of the date of incident discovery, submit to the Department of the California Highway Patrol, at the above address, a written report including time and date of occurrence, injuries, property damage, continuing danger to life at the scene of the incident, identification of the commodity and its classification, and other pertinent details.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. Amendment filed 7-8-81; effective thirtieth day thereafter (Register 81, No. 28).
2. Change without regulatory effect of subsection (b) (Register 86, No. 48).
3. Amendment of subsections (b) and (d)(3) filed 11-30-88; operative 12-30-88 (Register 88, No. 51).
4. Amendment of subsection (b) filed 9-27-90; operative 10-27-90 (Register 90, No. 45).

§ 13-1167. Delivery of Shipments; Action in Event of Accidents.

The delivery of hazardous materials shipments and required driver action in the event of accidents shall be governed by provisions of Subpart D (commencing with Section 177.853), Part 177, 49 CFR.

§ 13-1168. Special Instructions—Flammable Cryogenic Liquids.

Flammable cryogenic liquids shall be transported in accordance with 49 CFR 177.818.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. New section filed 11-30-88; operative 12-30-88 (Register 88, No. 51).

§ 13-1170. Scope.

NOTE: Authority and reference cited: Section 2560, Vehicle Code.

HISTORY

1. New Article 4 (Sections 1170-1173) filed 8-19-81; effective thirtieth day thereafter (Register 81, No. 34). For history of former Article 4, see Register 77, No. 34.
2. Change without regulatory effect filed 2-8-88; operative 3-9-88 (Register 88, No. 7).
3. Change without regulatory effect repealing section filed 1-29-90 pursuant to Section 100, Title 1, California Code of Regulations (Register 90, No. 5).

§ 13-1171. Definitions.

NOTE: Authority and reference cited: Section 2560, Vehicle Code.

HISTORY

1. Change without regulatory effect of subsection (b) (Register 86, No. 48).
2. Change without regulatory effect repealing section filed 1-29-90 pursuant to Section 100, Title 1, California Code of Regulations (Register 90, No. 5).

§ 13-1172. Fees.

NOTE: Authority and reference cited: Section 2560, Vehicle Code.

HISTORY

1. Change without regulatory effect repealing section filed 1-29-90 pursuant to Section 100, Title 1, California Code of Regulations(Register 90, No. 5). n

§ 13-1173. Reinspections.

NOTE: Authority and reference cited: Section 2560, Vehicle Code.

HISTORY

1. Change without regulatory effect repealing section filed 1-29-90 pursuant to Section 100, Title 1, California Code of Regulations (Register 90, No. 5).

§ 13-1176. Hazardous Waste Training.

NOTE: Authority and reference cited: Section 25168, Health and Safety Code.

HISTORY

1. New article 4.5 (section 1176) filed 6-15-87, operative 7-15-87 (Register 87, No. 25).
2. Repealer filed 3-4-93; operative 3-4-93 (Register 93, No. 10).

§ 13-1178. Hazardous Materials Training.

(a) Shippers and carriers shall thoroughly instruct each of their officers, agents, and employees having any responsibility for preparing hazardous materials for transportation, or for transporting hazardous materials as to applicable requirements of Article 3 governing the performance of those individuals' responsibilities.

(b) Carriers shall not transport flammable cryogenic liquids in cargo tanks unless the driver of the vehicle has been trained pursuant to 49 CFR 177.816(b) and records of such training are maintained pursuant to 49 CFR 177.816(c). When an interchange operation is involved, this subdivision applies only to an originating carrier.

NOTE: Authority and reference cited: Section 34501, Vehicle Code.

HISTORY

1. New section filed 11-30-88; operative 12-30-88 (Register 88, No. 51).

§ 13-1190. Scope.

This article implements the provisions of Division 14.7 of the Vehicle Code relating to the registration, inspection, and certification of cargo tanks used to transport flammable and combustible liquids.

NOTE: Authority cited: Section 34020, Vehicle Code. Reference: Sections 34000, 34040-34045, 34048 and 34049, Vehicle Code.

HISTORY

1. Renumbering of former Section 1190 to Section 1190.1 and new Section 1190 filed 9-7-84; effective thirtieth day thereafter (Register 84, No. 36). For prior history, see Registers 84, No. 2; and 83, No. 26.

§ 13-1190.1. Registration.

(a) Identification. The California Highway Patrol (CHP) shall register a cargo tank and assign a cargo tank identification number (CT number)

upon acceptance of a properly completed Application for Cargo Tank Registration accompanied by the appropriate registration fee.

(b) Temporary Registration. To allow cargo tanks from out of state to enter California to be inspected and registered, a document evidencing payment of registration fees (e.g., money order, or money–gram receipt) and which bears an assigned CT number, shall be accepted as temporary registration for a period not to exceed 10 days from the date of payment.

(c) Change in Status. Any change in status of a registered cargo tank shall be reported to the Department of the California Highway Patrol, Hazardous Material Section, Cargo Tank Unit, P.O. Box 942898, Sacramento, CA 94298–0001, by the owner, using the Cargo Tank Status Change form on the reverse of the owner's copy of the application form.

(1) Transfer of Ownership. The recorded owner of each registered cargo tank shall enter the name and address of the new owner(s), sign the status change notice, and deliver or mail the form to the CHP at the above address within 10 days of the transfer of ownership.

(2) Issue of Duplicates. The CHP shall issue duplicate certificates or certification labels upon requests made in writing to the CHP at the above address. Requesters shall certify that the original registration, certificate, or label has been lost, stolen, damaged or mutilated.

(3) Change of Address. A change of address shall be reported to the CHP at the above address, within 15 days after the date of the change.

NOTE: Authority cited: Section 34020, Vehicle Code. Reference: Sections 34000, 34040–34045, 34048 and 34049, Vehicle Code.

HISTORY

1. New article 6 (sections 1190–1194) filed 6–22–83; effective thirtieth day thereafter (Register 83, No. 26).
2. Relettering of subsection (b) to subsection (c) and new subsection (b) filed 1–9–84; effective thirtieth day thereafter (Register 84, No. 2).
3. Renumbering of former section 1190 to section 1190.1 and amendment of NOTE filed 9–7–84; effective thirtieth day thereafter (Register 84, No. 36).
4. Change without regulatory effect of subsection (c)(3) (Register 86, No. 48).
5. Editorial correction of subsection (c)(3) printing error (Register 87, No. 4).
6. Amendment filed 3–4–93; operative 3–4–93 (Register 93, No. 10).

§ 13–1191. Fees.

(a) The fee for annual registration or renewal of registration of a cargo tank without certification of a vapor recovery system shall be fifty dollars ($50).

(b) The fee for annual registration or renewal of registration of a cargo tank which includes the certification of a vapor recovery system shall be sixty–five dollars ($65).

(c) The fee for transfer of ownership, issue of duplicate registration, certificate and/or certification label, or change of address shall be ten dollars ($10).

(d) Proration of Fees: In order to implement year–round registration of cargo tanks, the CHP may prorate registration fees in (a) and (b) above in proportion to the new period of registration.

(e) Federal, State, County, City, and City and County agencies are exempt from the registration fee requirements of this article.

NOTE: Authority cited: Section 34020, Vehicle Code. Reference: Sections 34000, 34020, 34045 and 34048, Vehicle Code.

HISTORY

1. Amendment of subsections (c) and (d) filed 3–4–93; operative 3–4–93 (Register 93, No. 10).

§ 13–1192. Inspection.

(a) Scheduling. Upon acceptance by the CHP of a properly completed application and appropriate fees, an inspection of each cargo tank will be scheduled. The owner or operator shall make each cargo tank vehicle available for inspection in a safe work location within 30 working days after notification by the CHP.

(b) Reinspection. When necessary to verify that corrections have been made, not more than 1 reinspection visit may be scheduled at each terminal or facility without submission of new application(s) and payment of additional fees, provided corrections are made and cargo tanks are offered for reinspection within 30 days of the initial inspection.

(c) Vapor Recovery System Testing. For tanks with California Air Resources Board (CARB) required vapor recovery systems (VRS), required testing may be conducted and certified at any time within 60 days prior to the CHP inspection, or it may be performed in the presence of the CHP inspector, who will then certify the results. In all cases, the tank owner or operator must notify the CHP not later than 24 hours prior to conducting required VRS tests.

NOTE: Authority cited: Section 34020, Vehicle Code. Reference: Sections 34000, 34060 and 34060.5, Vehicle Code.

HISTORY

1. Amendment of subsections (a) and (c) filed 3–4–93; operative 3–4–93 (Register 93, No. 10).

§ 13–1193. Certification.

(a) Label. A Cargo Tank Certification Label shall be affixed to each cargo tank which has been inspected and found to be in compliance with all applicable requirements. (See Figure 1.)

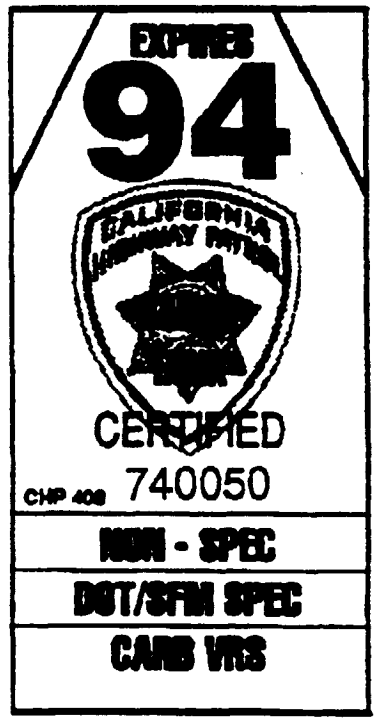

Figure 1. Cargo Tank Certification Label

(1) Validity. Certification labels are valid for a period of 1 year, and expire on the last day of the same month in the year indicated.

(2) Colors. The quarter in which a certification label will expire is indicated by its color: green—January through March; yellow—April through June; orange—July through September; white—October through December.

(3) Shape. Within each quarter, the month of expiration of a certification label is indicated by the number of upper corners remaining. In the first month of the quarter, both upper corners are removed; in the second month of the quarter, the upper left corner is removed; in the third month of the quarter, no corners are removed.

(4) Tank Design Specification. If the tank is certified by the CHP as being in compliance with a U.S. Department of Transportation (DOT) tank specification or State Fire Marshal (SFM) design approval tank specification (DOT/SFM SPEC), both the DOT/SFM SPEC and the NON–SPEC (as defined below) portions of the label remain intact. If the tank is certified to be in compliance with 49 CFR, Section 173.24 as a non DOT or SFM specification tank, i.e., a non–specification tank (NON–SPEC), the DOT/SFM SPEC portion of the certification label is removed.

(5) CARB VRS Certification. If a tank is certified as complying with the vapor recovery system requirements of the California Air Resources

(f) Revoke a permit on any of the grounds specified in section 4-3-180 of this article.

(g) Make such other disposition of the matter heard as may be appropriate and in conformity with this article. (Code 1961, § 43.0423)

ARTICLE 4. HAZARDOUS MATERIALS DISCLOSURE*

Sec. 4-3-200. Intent and purpose.

The Board of Supervisors finds and declares that:

(a) Emergency service personnel in the County have a need to know of the use and dangers of hazardous materials in the community in order to plan for and respond to potential emergencies and exposure to such materials;

(b) Basic information on the location, type and the health risks of hazardous materials used or stored in the County is not now available to firefighters, health officials, planners, elected officials and other emergency response personnel;

(c) It is intended that the system of disclosure set forth in this article shall provide that information essential to firefighters, health officials, planners, elected officials and other emergency service personnel in meeting their responsibilities for the health and welfare of the community in such a fashion that trade secrecy is not abridged;

(d) It is further intended that this article implement the community's right and need for basic information on the use and disposal of hazardous materials in the County and provide for an orderly system for the provision of such information. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-210. Definitions.

For the purpose of this article the terms listed in this section shall be defined as follows; provided, however, references to statutes or regulations in existence at the time this article is adopted shall also include references to such statutes or regulations as they may be amended or changed in the future:

(a) *Carcinogen* refers to a substance which causes cancer. For purposes of this article, carcinogens are those substances specified on the list developed by the United States Department of Health and Human Services on its Second Annual Report on Carcinogens.

(b) *CAS number* means the unique identification name as assigned by the Chemical Abstracts Services to specific chemical substances.

(c) *Chemical name* means the scientific designation of a substance in accordance with the International Union of Pure and Applied Chemistry or the system developed by the Chemical Abstracts Services.

(d) *Common name* means a designation of identification such as code name, code number, trade name or brand name used to identify a substance other than by its chemical name.

(e) *Disclosure form* means the written request for information prepared pursuant to sections 4-3-230 and 4-3-240.

(f) *Handle* means to generate, treat or dispose of hazardous material in any fashion.

(g) *Handler* means any peron who handles a hazardous substance.

(h) *Hazardous material* means any substance or hazardous waste as defined in subdivisions (i) or (j) in this section, or any material designated pursuant to section 4-3-220.

(i) *Hazardous material* means any substance or product:

(1) For which the manufacturer or producer is required to prepare a MSDS for the substance or product pursuant to the Hazardous Substances Information and Training Act (commencing with Section 6360, Chapter 2.5, Part 1 of Division 5 of the California Labor Code) or pursuant to any applicable Federal law or regulation; or

(2) Listed in Section 25316 of the Health and Safety Code; or

*Editor's note — Ord. No. 3552, § 1, adopted November 5, 1985, amended this Code by adding Art. 4, §§ 4-3-200—4-3-300, to read as herein set out.

(3) Which is listed as a radioactive material set forth in Chapter 1, Title 10, Appendix B, Code of Federal Regulations; or

(4) Which is listed as a legal carcinogen from the California Administrative Code, Title 8, Subchapter 7, Group 16 and those substances specified in item (a) of this section; or

(5) Which the Director of the Department of Food and Agriculture classifies as pesticides; or

(6) Which the EPA classifies as priority organic pollutants.

(j) *Hazardous waste* or *extremely hazardous waste* means any material that is identified in:

(1) Sections 25115 or 25117 of the California Health and Safety Code and set forth in Sections 66680 and 66684 of Title 22 of the California Administrative Code; or

(2) The Code of Federal Regulations, Title 40, Sections 261.31—261.33.

(k) *Health Official* means the Health Officer of the County of Orange or his deputy.

(l) *MSDS* means a Material Safety Data Sheet prepared pursuant to Section 6390 of the California Labor Code or pursuant to the regulations of the Occupational Safety and Health Administration of the United States Department of Labor.

(m) *Person* means an individual, trust, firm, joint stock company, corporation, partnership or association.

(n) *Physician* means any person who holds a valid certificate from the State of California to practice the healing arts.

(o) *SIC code* means the identification number assigned by the Standard Industrial Classification code to specific types of business.

(p) *Storage* or *storing* means the containment of substances or materials in such a manner as not to constitute disposal of such substances or materials.

(q) *Use* includes the handling, processing or storage of a hazardous substance.

(r) *User* means any person who uses a hazardous substance or handles a hazardous waste. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-220. Additional designation of hazardous materials.

A substance may be deemed a hazardous material or hazardous waste upon a finding by the Director of Fire Services that the substance, because of its quantity, concentration or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the community. The Director of Fire Services may use the Uniform Fire Code published by the Western Fire Chiefs to assist in requiring the types and amounts of such substances to be disclosed. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-230. Filing of a hazardous material disclosure form.

(a) Any person who uses or handles a hazardous material must ~~file~~ annually ~~during the months of January and July~~ submit a completed disclosure form to the Orange County Fire Department.

(b) Any person who, during the calendar year, for the first time becomes a user or handler of any hazardous material must submit a completed disclosure form to the Orange County Fire Department within thirty (30) days of becoming a user or handler. Thereafter any such user or handler shall comply with the provisions of section 4-3-230(a).

(c) The Orange County Fire Department may, upon thirty (30) days written notice, require the submittal of a disclosure form of any user or handler.

(d) Any person required to submit a disclosure form pursuant to this section shall file with the Fire Department of Orange County an updated disclosure form within fifteen (15) days of any of the following:

(1) A change in business address.

(2) A change in business ownership.

(3) A change of business name.

(4) Cessation of business operations.

(5) The use or handling of a previously undisclosed hazardous material.

(6) A significant change in the use or handling of a hazardous material for which disclosure has been previously made. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-240. Required disclosure form.

(a) The disclosure form shall be developed by the Director of Fire Services, and shall include, but not be limited to, the following:

(1) A copy of the MSDS for every hazardous material used by the person completing the disclosure form as required by the Fire Deparment.

(2) CAS number as may be required by the Fire Department.

(3) SIC code as may be required by the Fire Department.

(4) U.N. identification number as may be required by the Fire Department.

(5) A listing of the chemical name and any common names of every hazardous material used by the person completing the disclosure form.

(6) The maximum amount of each hazardous material which is handled or used at any one time by the user over the course of the year.

(7) Specific information on how and where the hazardous materials are handled or used by the user so as to allow fire and safety personnel to prepare adequate emergency response plans to potential releases of the hazardous materials.

(8) The names and phone numbers of at least two (2) persons representing the business and who would be able to assist emergency personnel in the event of an emergency involving the business during business and non-business hours.

(9) The hazard characteristics of every hazardous material disclosed, including, but not limited to, toxicity, flammability, reactivity, and corrosivity as may be required by the Fire Department.

(b) Upon request all users must provide the following information:

(1) To the Fire Department, any information determined by the Fire Department to be necessary to protect the public health, safety or the environment.

(2) To any physician, where the physician determines that such information is necessary to the medical treatment of his or her patient. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-250. Exemptions from disclosure.

(a) The following materials or persons are exempt from the disclosure requirements of section 4-3-230:

(1) A material designated as a hazardous material by this article solely by its presence in the Nuclear Regulatory Commission list of radioactive materials shall be exempt from the requirement that a MSDS be submitted with the disclosure form.

(2) Hazardous materials or substances contained in food, drug, cosmetic or tobacco products.

(3) Any person using or handling less than five hundred (500) pounds or fifty-five (55) gallons per year, whichever is the lesser, of a hazardous material shall be exempted from the requirement of disclosure of that use or handling unless the Fire Chief has provided notice that the weight or volume limits of this exemption for a specific hazardous material has been lowered in response to public health concerns or to meet the intent and requirements of the Uniform Fire Code.

(4) Hazardous materials contained solely in consumer products packaged for use by and distributed to the general public unless the product is repackaged or altered in any way; provided, however, the manufacture and distribution of these products are not exempt.

(5) Any person, while engaged in the transportation of hazardous materials, including storage incident thereto, provided that such materials are accompanied by shipping papers prepared in accordance with the provisions of 49 Code of Federal Regulations, Subchapter c, as now in existence or as hereafter amended or changed.

(6) Infectious waste generated by hospitals, medical centers, clinics and other health care facilities that

are regulated under Title 22 of the California Administrative Code.

(b) The exemptions contained in this section shall not apply to the using or handling of carcinogens, except to the extent that such carcinogens are handled or used solely for personal purposes.

(c) No MSDS shall be required for any hazardous material for which an MSDS is not available at the time disclosure is required, provided, however, that such MSDS shall be submitted to the Fire Department within fifteen (15) days after receipt by the user of the MSDS. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-260. Information regarding hazardous waste.

The Health Officer will make information available to fire departments and emergency response personnel, upon request, regarding hazardous wastes, extremely hazardous wastes, and underground tanks, when the information is obtained by the Health Officer. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-270. Identification of areas.

(a) When required by the Director of Fire Services, work areas in which any person uses or handles hazardous material shall be identified as such by such measures as the Director of Fire Services may specify including, but not limited to, signs, color coding, posting lists of material and MSDS or other notices.

(b) When required by the Director of Fire Services, any person submitting a disclosure form may be required to install an approved key box for emergency utilization of MSDS, floor plans, site plans and access keys. The location of the required key box shall be as designated by the Director of Fire Services. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-280. Fees.

The Board of Supervisors may establish by resolution a schedule of fees to be paid by persons subject to this article which is sufficient to cover the costs of administration resulting from this article. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-290. Trade secrets.

(a) A user may designate some, or all, of the information on the disclosure form as a trade secret. Any information designated as a trade secret contained on the disclosure form shall not be disclosed to anyone except:

(1) An officer or employee of a governmental entity in connection with the official duties of such officer or employee under any law for the protection of health.

(2) Contractors or governmental entities when, in the opinion of the Director of Fire Services, disclosure is necessary and required for the protection of health and the performance of a contract.

(3) Any physician where the physician determines that such information is necessary for the medical treatment of his or her patient.

(b) Any officer or employee of the County, or former officer or employee, who by virtue of such employment or official position has obtained possession of or has access to information, the disclosure of which is prohibited by this section, and who, knowing that disclosure of the information is prohibited, knowingly and wilfully discloses the information in any manner to any person not entitled to receive it, shall be in violation of this section. For purposes of determining a violation of this section, a contractor who has been furnished information pursuant to this section shall be deemed an employee of the County. Any physician who has been furnished information or who has obtained information pursuant to this section and who, knowing that disclosure of the information is prohibited, knowingly and wilfully discloses this information, shall be in violation of this section.

(c) Upon receipt of a request for the release of information to the public which includes information which the user has notified the Fire Department is a trade secret pursuant to subsection (a) of this section, the Fire Department shall notify the user in writing of said request by certified mail. The Fire Department shall release the information thirty (30) days after the day of mailing said notice, unless, prior to the expiration of said thirty (30) days, the user institutes an action in an appropriate court for a declaratory judgment that said information is subject to protection under subsection (b) of this section and/or an injunction prohibiting disclosure of said information to the general public.

(d) The provisions of this section shall not permit a user to refuse to disclose information required to be

disclosed pursuant to this article. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-295. Rules and regulations.

The Director of Fire Services shall make such rules and regulations as may be necessary to implement this article, including, but not limited to, the maintenance of a comprehensive list of substances which would be classified as hazardous materials under this article. (Ord. No. 3552, § 1, 11-5-85)

Sec. 4-3-300. Violations.

Any violation of the provisions of this article shall be a misdemeanor. (Ord. No. 3552, § 1, 11-5-85)

HAZARDOUS MATERIALS DISCLOSURE

Chemical Inventory and Business Emergency Plan

ORANGE COUNTY FIRE DEPARTMENT
Hazardous Materials Disclosure Office
180 South Water Street
Orange, CA 92666
(714) 744-0463

Business
Name: _____ Business Phone: (_____)_____-_____

Business Site
Address: _____ City_____ Zip_____

Mailing Address
(If different): _____ City_____ Zip_____

Packet Received
by (print): _____ Date Received:____/____/____

Signature: _____

To Business Owner:

_____

_____

_____

FOR FIRE DEPARTMENT USE ONLY:

This disclosure packet was given to the business owner for the following reason(s):

- ☐ Business new to system – chemicals in disclosable amounts on site.
- ☐ Change of owner
- ☐ There are chemicals in disclosable amounts on site that are not on HMDO Administrative Report.
- ☐ Other: _____

Disclosure packet issued by HMDO: ☐

INSPECTION # _____
CO._____ SHIFT _____
INSPECTOR. ID # _____

DATA ENTRY/TRACKING COPY (Forward Immediately to HMDO)

ORANGE COUNTY FIRE DEPARTMENT

HAZARDOUS MATERIALS DISCLOSURE

Chemical Inventory and Business Emergency Plan

Official Use Only

Inspection #

PART I — General Business Information

Section A — Address Information

Business Name (Doing Business as)			Business Phone ( ) -
Business Site Address (Not a PO Box) - Include Building or Suite #	City	State	Zip
Mailing Name and Address (if different from above)	City	State	Zip
Mail to the Attention of			
Owner's Name			

Section B — Contact Information

Supply the name, title and phone of an emergency contact person DURING BUSINESS HOURS:

SHIFT HOURS NAME PHONE (with extension)

TITLE ( ) - ext:

Supply the names, titles and phone numbers of emergency contact people Hazardous Materials incident:

SHIFT HOURS NAME AFTER HOURS PHONE

TITLE ( ) -

SHIFT HOURS NAME AFTER HOURS PHONE

TITLE ( ) -

SHIFT HOURS NAME AFTER HOURS PHONE

TITLE ( ) -

Official Use Only

Section C — Business Information

Legal Business Name (if different than Doing Business As name)		
Business License Number	Dunn & Bradstreet (D&B) Number	EPA ID#
Give description of the main operation of your business		
Shift Hours	Number of Employees	
Shift Hours	Number of Employees	
Shift Hours	Number of Employees	
Standard Industrial Code (SIC)	Building Occupancy Class	
Square footage of Building	Number of floors	
Are you a non-profit organization? ☐ Yes ☐ No		
Do you have a license to purchase commercial grade pesticides? If yes, give number. ☐ Yes ☐ No number: _____		

Section D — Reporting Status

Circle the letter that best describes your business's hazardous materials usage:

A — No chemicals are used or stored in my business operations.

B — Chemicals are used, handled or stored in my business, but not in disclosable amounts: 500 pounds of a solid, 55 gallons of a liquid, 200 cubic feet of a gas. My business does not use disclosable amounts of acutely hazardous materials. My business does not use, handle or store any amount of hazardous material that would fall into one of the following categories:

- Any class "A" explosive
- Any class "A" poison
- Any commercial grade pesticide
- Any unsealed radioactive isotope
- Any legal carcinogen (pure chemical or component of a compound)

C — Chemicals are used and/or stored in our business and I am submitting my Hazardous Materials Disclosure – Chemical inventory and Business Emergency Plan.

HAZARDOUS MATERIALS DISCLOSURE

Chemical Inventory and Business Emergency Plan

Section E — Signature

The Chemical Inventory is required to be updated once every year. In addition, if there are any changes to the information submitted, the Chemical Inventory must be updated, in writing, within 15 days of the change.

Changes include:

1. **Change of Business Address.**
2. **Change of Business Ownership.**
3. **Change of Business Name.**
4. **Cessation of Business Operation(s).**
5. **Change of Business Occupancy Class (Uniform Building Code).**
6. **Reclassification of trade secret information.**
7. **Change in handling or use of previously undisclosed hazardous material, waste or combination thereof.**
8. **Storage or use of any new hazardous materials that would require you to comply with the disclosure laws.**
9. **A significant change in the use, handling or quantity of any hazardous material for which Disclosure Information has already been filed.**

Answer the following questions and initial.

Does your business use, store, or handle any amount of Class "A" explosives? ❑ Yes ❑ No Initials _____

Does your business use, store, or handle any amount of Class "A" poisons? ❑ Yes ❑ No Initials _____

Does your business use, store, or handle any amount of commercial grade pesticides? ❑ Yes ❑ No Initials _____

Does your business use, store, or handle any unsealed radioactive isotopes? ❑ Yes ❑ No Initials _____

Does your business use, store, or handle any legal carcinogens? ❑ Yes ❑ No Initials _____

Does your business use, store, or handle any Acutely Hazardous Materials? ❑ Yes ❑ No Initials _____

I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the submitted information is true, accurate, and complete.

Print Name of Owner/Operator:

Signature: Date:

This Document was Prepared by (print name):

Title:

Signature: Date:

Phone number of person who prepared document:

NOTE: This document will not be accepted unless it is signed and completed in full.
Keep a copy of all documents for your records.
You may keep the originals of the yellow, blue, and pink pages for your records.

Part II Section C HAZARDOUS MATERIALS DISCLOSURE Chemical Inventory and Business Emergency Plan

ORANGE COUNTY FIRE DEPARTMENT
Hazardous Materials Inventory Statement

TRADE SECRET INVENTORY FORM

For Office Use Only	Ins #	Date	Page	of

Business Name

Business Site Address | Suite #

City | State | Zip

- Use a separate page for each material.
- Please type or print legibly in black ink.
- If additional copies are necessary, this form may be reproduced.
- For line-by-line instructions, refer to the blue colored pages of the Disclosure Packet.
- For assistance, contact the Disclosure Office 744-0463.
- Changes in quantity must be reported within 15 days.

CAS # | Common or Trade Name of Material | DOT #

Is this material an Acutely Hazardous Material? (AHM) (refer to Attachment C) ☐ Yes ☐ No

Is this material a Carcinogen? (refer to Attachment B) ☐ Yes ☐ No

MIXTURE: Is this material a mixture? ☐ Yes ☐ No If Yes, identify the three most hazardous ingredients.

CAS #	Chemical Name	Percent	AHM? ☐ Yes ☐ No / Carcinogen? ☐ Yes ☐ No
CAS #	Chemical Name	Percent	AHM? ☐ Yes ☐ No / Carcinogen? ☐ Yes ☐ No
CAS #	Chemical Name	Percent	AHM? ☐ Yes ☐ No / Carcinogen? ☐ Yes ☐ No

HAZARD INFORMATION:

General Hazard Class:
Hazard # 1 _____
Hazard # 2 _____
Hazard # 3 _____
(refer to Table #1)

Physical Hazard:
1 ☐ Fire
2 ☐ Reaction
3 ☐ Sudden pressure release

Health Hazard:
1 ☐ Acute: first-time exposure results in immediate effects.
2 ☐ Chronic: delayed health effects from repeated exposures.

STORAGE INFORMATION:

Type of Container: ☐ (refer to Table #2)

Storage Pressure:
1 ☐ Normal atmospheric pressure
2 ☐ Compressed, Pressurized
3 ☐ Vacuum (less than ambient)

Storage Temperature:
4 ☐ Normal air temperature
5 ☐ Heated
6 ☐ Less than ambient temp.
7 ☐ Cryogenic

Site Map Page #: ☐

Site Map Grid Coordinates: ☐ - ☐ (example: B-2)

Describe Storage Location

QUANTITY INFORMATION:

Maximum amount on-site at any time: _____

Average daily amount on-site: _____

Number of days materials on-site during year: _____

Size of the largest storage container: _____

Material Form / Unit of Measure:
1 ☐ Liquids / Gallons (GALS)
2 ☐ Gas / Cubic Feet (CU FT)
3 ☐ Solid / Pounds (LBS)

Radioactive Materials
_____ curies
☐ Alpha ☐ Beta ☐ Gamma

USAGE INFORMATION:

How is material disposed of? (refer to Table # 3): _____

Is a waste produced or left-over after processing? ☐ Yes ☐ No
If Yes, complete a *Waste Inventory Form.*

How is this material used / What is the material used for?

For Office Use Only			
☐ under	☐ Carc	☐ Aexp	☐ 1
☐ comb	☐ Rad	☐ Apoi	☐ 2
☐ exempt	☐ CGP	☐ AHM	☐ 3

HAZARDOUS MATERIALS DISCLOSURE

Chemical Inventory and Business Emergency Plan

Section D — Site Map

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1															1
2															2
3															3
4															4
5															5
6															6
7															7
8															8
9															9
10															10
11															11
12															12
13															13
14															14
15															15
16															16
17															17
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	

BUSINESS NAME | DATE

ADDRESS | CITY | ZIP

HAZARDOUS MATERIALS DISCLOSURE

Chemical Inventory and Business Emergency Plan

PART III — Business Emergency Plan (BEP)

Please read instructions (on blue page 18) prior to completing this Business Emergency Plan.

This form shall be typed or printed legibly in black ink.

Keep a copy for your records and return the completed original forms, with Parts I and II, to:

Orange County Fire Department
Hazardous Materials Disclosure Office (HMDO)
P.O. Box 86
Orange, CA 92666-0086

Mark the correct box:

- ☐ This is the first time I have filed a BEP.
- ☐ A BEP is required to be filed every two years. I am submitting my BEP to meet this requirement.
- ☐ There have been changes in my business operation and/or personnel and I am submitting a new BEP with the corrected information.

Section A — Business Identification Data

Business Name
Address
Business Owner
I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the submitted information is true, accurate, and complete.

Print name of Owner/Operator	Signature	Date
Business Plan Prepared By	Signature	Date

OFFICIAL USE ONLY: Insp. #	Issued	Reviewed By
Received	Correction Required	

Section B — Emergency Response Plans and Procedures

1. Your business is required by State Law to provide immediate notification of any release or threatened release of a hazardous material to 1) local fire emergency response personnel, 2) the Office of Emergency Services (OES), and 3) this Administering Agency. If you have a release or threatened release of hazardous materials, immediately call:

   Fire/Paramedics/Police/Sheriff
   Phone: 911

Individual responsible for Calling 911:

After the local emergency response personnel are notified, you shall then notify the Administering Agency (HMDO) and the Office of Emergency Services (24 hours/day):

State Office of Emergency Services: (800) 852-7550 or (916) 427-4341

AND:
Local Administering Agency: (714) 744-6699

Individual responsible for calling this Administering Agency and the State OES:

2. List the local emergency medical facility that will be used by your business in the event of an accident or injury caused by a release or threatened release of hazardous materials.

Hospital/Clinic			
Address	**City**	**Zip Code**	**Phone Number**
			( ) -

3. **Does your business have a private on-site emergency response team?** ☐ Yes ☐ No

   If yes, describe what policies and procedures your business will follow to notify your on-site emergency response team in the event of a release or threatened release of hazardous materials. (Attach additional pages if necessary.)

State law requires your business to complete all sections of the Emergency Response Procedure listed below. "N/A" is not acceptable.

4. Briefly describe your business's standard operating procedures in the event of a release or threatened release of hazardous materials:

   a. **Prevention** (prevent the hazard) — Describe the kinds of hazards associated with the materials present at your facility. What actions will your business take to **prevent** these hazards from occurring? Issues for discussion may include safety, storage, and containment procedures.

f. Describe where you keep other records required by this plan, such as employee training records (including drills), release report records, persons responsible for maintenance/safety and their records, and emergency phone lists.

Section C — Employee Training Program

1. Describe the training your business conducts for all employees in safety procedures in the event of a release or threatened release of hazardous materials. By law, this training **shall include**, but not be limited to, the following: new employee training, annual training, periodic refresher courses, and familiarization with Section B (Emergency Plans and Procedures) of this Business Emergency Plan.

UNIFORM FIRE CODE™

1991 Edition

International Fire Code Institute

examples. The manual is in loose-leaf form so that code interpretations published in *Building Standards* magazine may be inserted.

Plan Review Manual. Provides an understanding of the extent of Uniform Building Code provisions and illustrates application to given situations. Covers nonstructural aspects and provides an insight into the basic engineering considerations a plans examiner or checker must utilize.

Field Inspection Manual. Designed to improve inspection skills and techniques. A fundamental and important text for courses of study at the community college and trade or technical school level.

Building Official Management Manual. This manual addresses the unique nature of code administration and the managerial duties of the building official. A supplementary insert addresses the budgetary and financial aspects of a building department. It is also an ideal resource for those preparing for the management module of the CABO Building Official Certification Examination.

Legal Aspects of Code Administration. A manual developed by the three model code organizations to inform the building official on the legal aspects of the profession. The text is written in a logical sequence with explanation of legal terminology and is designed to serve as a refresher to those preparing to take the legal module of the CABO Building Official Certification Examination.

Illustrated Mechanical Manual. Contains a series of illustrations with explanatory text covering requirements in the Uniform Mechanical Code which respond to graphic treatment. It is highly useful for code application and for training purposes.

Concrete Manual. A publication for individuals seeking an understanding of the fundamentals of concrete field technology and inspection practices. Of particular interest to concrete construction inspectors, it will also benefit employees of concrete producers, concrete contractors, testing and inspection laboratories, and material suppliers.

You Can Build It! Published by ICBO in cooperation with CABO, this booklet contains information and advice to aid "do-it-yourselfers" with building projects. Provides guidance in necessary procedures such as permit requirements, codes, plans, cost estimation, etc.

Guidelines for Manufactured Housing Installations. A guideline in code form implementing the Uniform Building Code and its companion code documents to regulate the permanent installation of a manufactured home on a privately owned nonrental site. A commentary is included to explain specific provisions, and codes applying to each component part are defined.

Tabulated Fire-Resistive Requirements by Occupancy. Related code requirements are assembled for quick access. The tabulations assemble the limitations in Tables Nos. 5-A, 5-B, 5-C, and 17-A and the provisions of the 01 through 03 sections of the occupancy and type of construction chapters in the Uniform Building Code.

Introduction to the Uniform Building Code Workbook. A student workbook containing a series of exercises designed to complement the course "Introduction to the Uniform Building Code, BIT-100." Assignments are arranged to provide an overview of the basics of the Uniform Building Code.

Plan Reading and Nonstructural Plan Review Workbook. A series of exercises intended to be a useful tool in understanding the concepts developed in "Plan Reading and Nonstructural Plan Review, BIT-101." The student exercises include assignments on code requirements and plan reading.

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SECTION V.E-208

HAZARDOUS WASTE FACILITIES PROCEDURE

Sections:

V.E-208 Hazardous waste facilities.

V.E-208.1 Intent.

The purpose of this section is to establish uniform standards, land use regulations and a permit process for controlling the location, design, maintenance and safety of off-site hazardous waste facilities. The Zoning Ordinance incorporates general policies regarding hazardous waste management facilities pursuant to State Assembly Bill No. 1201 -Tanner, 1989, Assembly Bill 2948 - Tanner, 1986 and Assembly Bill 477 - Greene, 1987 (Chapter 6.5 of the California Health and Safety Code) and Program A-3 in the Orange County Hazardous Waste Management Plan.

V.E-208.2 Applicability.

The specific requirements of this Ordinance are applicable to the siting and development of off-site hazardous waste treatment, storage, transfer and disposal facilities as defined in Section V.E-102.1, "Definitions."

The off-site facility definition does not apply to: a) Transportable Treatment Units (TTU), which are designed to be moved either intact or in modules and which are intended to be operated at a given location for a limited period of time, or b) permanent on-site hazardous waste facilities at locations where hazardous waste is produced, and which are owned by, leased to, or under the control of the producer of the waste.

All such facilities (i.e., off-site, on-site, and TTU's) shall require state licensing to install and operate.

A Conditional Use Permit for a hazardous waste facility shall be granted for only those substances and quantities identified in the conditions of approval. No additional types of wastes or increases in the quantity of approved wastes shall be allowed beyond those specified in the approved permit, unless a separate application is made therefore which shall satisfy the same procedures and contents as those required in an initial application.

V.E-208.3 Procedure.

The following procedures are for the purpose of identifying the steps for processing a Conditional Use Permit application for a specified off-site hazardous waste facility. These procedures include the steps to be taken by the project proponent, State and City.

A. At least 90 days before filing an application with the City for a land use decision for (Conditional Use Permit) a specified hazardous waste facility project, the project proponent shall file, with the Office of Permit Assistance (OPA) in the State's Office of Planning and Research and with the City, a Notice of Intent to make an application. The Notice of Intent shall specify the location to which the notice of intent is applicable and shall contain a complete description of the nature, function and scope of the project. The OPA shall immediately notify the affected state agencies of the Notice of Intent. The City shall publish a notice in a newspaper of general circulation in the area affected by the proposed project, shall post notices in the location where the project is proposed, and shall notify, by a direct mailing, the owners of contiguous property, as shown in the latest equalized assessment role. A Notice of Intent is not transferable to a location other than the location specified in the notice and shall remain in effect for one year from the date it is filed with a local agency or until it is withdrawn by the proponent, whichever is earlier. The City shall impose a fee upon a project proponent equal to the cost of notification required by this section. (Requirement of Section 25199.7(a) of the California Health & Safety Code.)

B. Within 90 days after a Notice of Intent is filed with the OPA, the OPA shall convene a public meeting within the City to inform the public on the nature, function, and scope of the proposed facility project and the procedures that are required for approving applications for the project. The City shall contact OPA regarding the location and time of the meeting and shall have representatives attend. (Requirement of Section 25199.7(c) of the California Health & Safety Code.)

C. Any time after receiving notification of the filing of a Notice of Intent but no later than 30 days after the application for a specified hazardous waste facility project is accepted as complete, the City Council shall appoint a seven-member Local Assessment Committee (LAC)

pursuant to the provisions of Section V.E-208.6 of this Ordinance. The City shall charge the project proponent a fee to cover the City's costs of establishing and convening the local assessment committee. The fee shall accompany the application for a land use decision. (Requirement of Section 25199.7(d) of the California Health & Safety Code.)

D. The City shall notify the OPA within 10 days after an application for a land use decision (Conditional Use Permit) for a specified hazardous waste facility project is accepted as complete by City and within 60 days after receiving this notice, the OPA shall convene a meeting of the lead and responsible agencies for the project, the project proponent, the LAC and the interested public, for the purpose of determining the issues which concern the agencies that are required to approve the project and the issues which concern the public. The meeting shall take place in the City. (Requirement of Section 25199.7(4)(e) of the California Health & Safety Code.)

E. Following the meeting as specified in Section V.E-208.3(d) of this Section, the project proponent and the LAC of the City shall meet and confer on the specified hazardous waste facility project proposal for the purpose of establishing the terms and conditions under which the project will be acceptable to the community. (Requirement of Section 25199.7(4)(f) of the California Health & Safety Code.)

F. At the request of the project proponent, the Community Development Department shall, within 60 calendar days after the City has determined that an application for a land use decision (Conditional Use Permit) for a hazardous waste facility is complete, issue an initial written determination on whether the hazardous waste facility project is consistent with both the City General Plan and Zoning Ordinance in effect at the time the application was received, and the Orange County Hazardous Waste Management Plan. (Requirement of Section 25199.5(a) of the California Health & Safety Code.)

(1) If the LAC finds that it requires assistance and independent advice to adequately review a proposed hazardous waste facility project, it may request technical assistance grants from the City to enable the LAC to hire a consultant to assist and/or advise the LAC. The LAC may use technical assistance grant funds made available to it to hire a consultant to do either, or both, of the following:

(a) Assist the committee in reviewing and evaluating the application for the project, the environmental documents prepared for the project pursuant to the California Environmental Quality Act (Division 13 [commencing with Section 2100] of the Public Resources Code) and any other documents, materials, and information that

are required by a public agency in connection with the application for a land use decision or a permit.

(b) Advise the LAC in its meetings and discussion with the facility proponent to seek agreement on the terms and conditions under which the project will be acceptable to the community.

(2) The project proponent shall pay a fee equal to the amount of any technical assistance grant provided to the LAC.

(3) The City shall deposit any fee imposed in an account created in the City, maintain records of all expenditures from the account, and return any unused funds and accrued interest to the project proponent upon completion of the review of the proposed hazardous waste facility project.

(Section 25199.7 of the California Health and Safety Code.)

G. An project proponent may file an appeal of a land use decision (Conditional Use Permit) made by the final approval body for a specified hazardous waste facility project with the Governor or the Governor's designee. (Requirement of Section 25199.9 of the California Health & Safety Code.)

V.E-208.4 Application Requirements.

The information listed below is required at the time a Hazardous Waste Facility application for an off-site facility is submitted to the Community Development Department.

1. A complete Development Case Application signed by the property owner or its authorized representative.

2. A non-refundable deposit or fee as set forth by ordinance or resolution of the City Council.

3. A Letter of Justification describing the proposed project and explaining how it will satisfy the Findings in Section V.E-208.10

4. Information required for public meetings and hearings, as determined by the Director of Community Development (see Section V.E-214).

5. A scaled, fully-dimensioned site plan and development plan drawn in sufficient detail to clearly describe the following:

(1) Physical dimensions of property and structures;

(2) Location of existing and proposed structures;

(3) Setbacks;

(4) Methods of circulation;

(5) Ingress and egress;

(6) Utilization of property under the requested permit;

(7) The distance from the project property lines to the nearest residential structure;

(8) Proximity of the project to 100-year floodplain areas;

(9) Proximity of the project to any known earthquake fault zones;

(10) The relationship of the proposed project to all above-ground water supplies as well as known underground aquifers that could conceivably suffer contamination;

(11) Topographic description of the property and surrounding area;

(12) Existing and proposed utilities which service or will be needed to service the facility;

(13) Identification of surrounding zoning and land uses;

(14) Landscape plans showing theme and location of all landscape areas;

(15) Building elevations showing building height, exterior materials, and architectural theme; and

(16) Other information as required by the Director of Community Development.

6. A preliminary geological study of the property and surrounding area which comprehends as deep a soils analysis as there are known aquifers, regardless of the potability of those aquifers;

7. Identification of all wastewater, treated and untreated, generated by the proposed facility and the method and place of final discharge;

8. Identification of the amounts (tonnage) and types of hazardous wastes to be treated at the proposed facility; the sources of these wastes; the ultimate disposition of the wastes; and the anticipated life of the facility. Information shall be provided on the amount, sources, and types of hazardous wastes to be treated based on an actual survey of the industries to be served and, thereby, be representative of the wastes that will be processed at the facility;

9. A plan that clearly delineates all public involvement with the proposed project prior to any formally advertised and scheduled public hearings. Said plan will provide for adequate public testimony on the project in an effort to mitigate all public concerns prior to the approval body reviewing the case;

10. A plan that identifies an ongoing monitoring program to ensure no unintentional release of any hazardous substance from the site. This shall include any ongoing monitoring necessary by other permitting agencies such as State Department of Health Services, the South Coast Air Quality Management District (AQMD), Environmental Protection Agency (EPA), Santa Ana Regional Water Quality Control Board, etc.;

11. A preliminary contingency plan for emergency procedures designed to minimize hazards to human health or the environment from fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. The plan shall provide for its immediate implementation whenever there is a fire, explosion, or release of hazardous waste constituents which could threaten human health or the environment. The preliminary contingency plan shall address the requirements included in Section V.E-102.1(c); and

12. Other information as required by the Director of Community Development to demonstrate compliance with the Facility Siting Criteria as outlined in Section V.E-208.6.

V.E-208.5 **Environmental Review.**

A. The project shall be subject to environmental analysis according to the City's environmental guidelines pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000-21177; 15000-15387).

B. The environmental analysis shall address, but not be limited to, the following:

(1) Describe at least two reasonable alternatives to the project; these alternatives shall be reviewed pursuant to the California Environmental Quality Act (Public Resources Code Section 15060(d).

(2) An analysis of visual, noise and any olfactory impacts associated with the project and recommended mitigation measures.

(3) An analysis of all anticipated air quality impacts associated with the project and proposed mitigation to ensure no degradation of air quality in the area.

(4) A health and safety assessment that analyzes in detail all probabilities of accidents or spills at the site, as well as, transportation-related accidents from the point of origin to the facility. Such analysis shall identify mitigation measures to reduce identified risks. The health and safety assessment shall identify the most probable routes for transporting hazardous wastes to the facility within Orange County.

(5) An analysis of traffic impacts associated with the project and recommended mitigated measures.

(6) An analysis of all anticipated water quality impacts associated with the project and proposed mitigation to ensure no degradation of water quality in the area.

(7) Other information as required by the California Environmental Quality Act (CEQA).

V.E-208.6 Facility Siting Criteria and Permitting Requirements.

The following siting criteria has been established for use by hazardous waste facility project proponents in locating and designing suitable facility sties and appropriate facilities, and by the City in evaluating proposed sites and facility projects. The purpose of the criteria is to reduce public health and environmental risks and governmental costs associated with development of 1988 Orange County Hazardous Waste Management Plan - Table V-3).

A. Protect the Residents of Orange County (and Irvine).

(1) Health and Safety Assessment

All Facilities: Facilities shall be sited so as not to create significant risks or cause adverse impacts to the health and safety of populations in surrounding public and private areas, as determined by a Health and Safety Assessment. A Health and Safety Assessment by a qualified preparer is required for a proposed facility prior to approval of a local permit, to provide technical and environmental evaluation of the proposed facility, site, and surrounding area. A Health and Safety Assessment will provide the information and analysis needed to demonstrate compliance of the proposed facility with the Siting Criteria. The scope of the assessment will vary according to the size, type and proposed location of the facility. It is not intended that the Health and Safety Assessment duplicate information developed for environmental impact reports or risk assessments required under local, state or federal regulations. When environmental impact reports and health risk assessments are required, their scopes should provide the information and analysis required, and thereby suffice for the Health and Safety Assessment.

The Health and Safety Assessment shall evaluate, at minimum the area within 2,000 feet of the site, which is designated a sensitive area, and shall evaluate the potential impact on sensitive populations. Sensitive populations include residential populations, employment populations, and immobile populations such as those in schools, hospitals, convalescent homes, jails and other similar facilities within the area of potential impact. The Health and Safety Assessment must consider the quantities and the physical and chemical characteristics of the specific types of waste that would be handled, the facility design features and planned operational practices. The need and distance for any buffering of the facility from residential areas or other sensitive land uses will be identified. The Assessment must include a hydrologic evaluation, and must assess risks due to physical hazards such as flooding and earthquakes and potential water or air pollution. The Assessment will detail credible potential accidents, including the distance over which effects would carry a variety of options for reducing risks, and procedures for dealing with the effects. The Assessment will identify the capabilities (including equipment and trained personnel) and response times of existing emergency services with regard to accidents at the facility, and will provide an emergency evacuation plan. If existing emergency services are deemed inadequate, the local agency may require the developer to supplement those services with onsite trained personnel and equipment.

Avoidance or mitigation of potential significant health or safety risks must be demonstrated to the satisfaction of the local permitting agency and the California Department of Health Services.

(2) Distance from Populations.

Treatment, Recycling and Collection Facilities: Facilities shall comply with local minimum zoning code setbacks, unless a greater buffer distance from other uses is deemed necessary, based on a required Health and Safety Assessment.

Residuals Repositories: A minimum buffer distance of 2,000 feet from residences and other sensitive land uses is required for a hazardous waste residuals repository per Health and Safety Code Section 25202.5(b) and (d). The size of the buffer zone necessary to protect public health and safety will be identified based on a required Health and Safety Assessment.

B. Ensure the Structural Stability of the Facility.

(1) Floodplains.

All Facilities: Facilities must be designed, constructed, operated and maintained to preclude failure due to flooding, per flood control authorities and requirements. Provisions must be made to contain and test storm runoff prior to discharge in areas subject to contamination by waste or treated material. The required Health and Safety Assessment will address flooding risks associated with the facility.

Treatment, Recycling and Collection Facilities: Facilities may be located in areas subject to 100-year flooding only if protected by offsetting engineered improvements, such as berms or raising the facility above flood levels. This includes areas subject to flooding by dam or levee failure and natural causes such as river flooding, flash floods, rainfall or snowmelt, tsunamis (tidal waves), seiches (earthquake-induced waves in lakes), and coastal flooding. A structural analysis or engineering design study must be provided which shows methods to prevent inundation or washout.

Residuals Repositories: Repositories are prohibited from locating in floodplain areas subject to 100-year flooding from natural cases or dam failure, even with protection, per Code of Federal Regulations (CFR), Title 40, Section 264.18(b), and California Administrative Code (CAC), Title 22, Section 66391(a)(11)(b).

(2) Earthquakes.

All Facilities: Facilities must have a minimum 200-foot setback from active or recently active earthquake faults, per the California Administrative Code (CAC), Title 22, Section 6391(a)(11)A(1) and (2). The required Health and Safety Assessment will address earthquake safety of the facility.

(3) Unstable Soils.

Treatment, Recycling and Collection Facilities: Facilities are prohibited from locating in areas of potential rapid geologic change, unless the facility and its containment structures have engineered design features to assure structural stability. This includes areas with unstable soils, steep slopes, and areas subject to liquefaction, subsidence or other severe geologic constraints. The required Health and Safety Assessment will include a geologic report defining any such constraints and engineered solutions.

Residuals Repositories: Repositories are prohibited from locating in areas of potential rapid geologic change, subsidence, or liquefaction per California Code of Regulations, Title 23, Subchapter 15, Section 2531(e). The required Health and Safety Assessment will include a geologic report.

C. Protect Surface and Groundwater Quality.

(1) Containment and Groundwater Monitoring.

All Facilities: Facilities shall be fully enclosed by containment structures of impermeable materials which would contain any unauthorized release of hazardous material. Facilities shall be equipped with leak detection and spill control and recovery capability. Groundwater monitoring wells must be located around each facility to determine background vadose zone and groundwater quality, and to detect leaks and spills from the facility, unless demonstrated to be safe without them through the Health and Safety Assessment. An ongoing groundwater monitoring program should be developed in consultation with local, state and water district representatives.

(2) Water Quality.

All Facilities: Facilities shall not be sited within watershed areas which flow to open reservoirs or aqueducts that contain drinking water supplies. Facilities shall locate such that domestic water supply wells cannot be adversely affected from unauthorized releases of contaminants. As a guideline, facilities should locate at least one mile from domestic supply wells in the Forebay area (principal recharge area to the Orange County groundwater basin), and at least one-half mile from domestic supply wells in the pressure area of the Orange County groundwater basin, unless demonstrated to be safe at closer proximity through the Health and Safety Assessment. Facilities shall not locate within wellhead protection zones as identified by EPA guidelines or municipal water supply agencies and local water districts, unless demonstrated to be safe at closer proximity through the Health and Safety Assessment. Facilities shall not impact the quality of surface waters (lakes, rivers, streams, creeks, etc.) or groundwater resources which have been identified for beneficial uses by the Regional Water Quality Control Board Basin Plan (per State Water Resources Control Board Policy Resolution 88-63). The required Health and Safety Assessment will identify water quality issues. Facilities must meet federal, state and local water quality requirements.

Treatment, recycling and collection facilities: Facilities are encouraged to locate outside of structured principal recharge areas to regional aquifers as defined in local or state plans, including the Forebay area. Facilities may locate in the following areas only with increased engineered design features such as horizontal and vertical containment and monitoring systems to ensure protection: (a) Major aquifer recharge areas, (b) Areas of permeable strata and soils, (c) Areas where the existing groundwater has beneficial uses as described in the Basin Plan. Facilities with subsurface storage

or treatment must be sited, designed and operated to ensure that hazardous materials will be the tension-saturated zone.

Residuals Repositories: Repositories are prohibited from locating in principal recharge areas to regional aquifers as defined in local or state plans, including the Forebay area. Repositories are prohibited in areas of high permeability (such as sand and gravel) per the requirements of the State Water Quality Control Board and California Code of Regulations, Title 23, Subchapter 15, Section 2531(b). Repositories may locate only where the uppermost water-bearing zone or aquifer is presently mineralized (by natural or man-induced conditions) to the extent that it is not considered for beneficial use by the Basin Plan. Repositories must be sited, designed and operated to ensure that hazardous materials will always be above the tension-saturated zone.

(3) Wastewater.

All Facilities: Facilities generating wastewaters should locate in areas with adequate industrial sewer capacity. The quality of wastewater must meet all federal, state and local sewering agency discharge requirements and the facility must obtain a valid industrial wastewater discharge permit.

D. Protect Air Quality.

(1) Air Quality Nonattainment and PSD Areas.

All Facilities: Facilities are prohibited in Class I areas as identified in the Clean Air Act, and within wilderness, National Parks, memorial areas and similarly dedicated areas. Facilities may be sited in other nonattainment and PSD (Prevention of Significant Deterioration) areas only if they meet the requirements of the South Coast Air Quality Management District. The required Health and Safety Assessment will identify air emissions, impacts and mitigations associated with the facility.

E. Protect Environmentally Sensitive Areas.

(1) Wetlands.

All Facilities: Facilities are prohibited from locating in wetlands such as saltwater, fresh water and brackish marshes, swamps and bogs, as defined in local, regional and state plans and policies (generally, areas inundated by surface or groundwater with a frequency to support, under normal circumstances, a prevalence of vegetative or aquatic life which requires saturated soil conditions for growth and reproduction).

(2) Animal and Plant Habitats.

All Facilities: Facilities are prohibited from locating within critical or significant habitat areas of animal and plant species (including threatened or endangered species), as defined in local, regional or state plans and policies.

(3) Prime Agricultural Lands.

All Facilities: Facilities are prohibited from locating on prime agricultural lands, as defined in California law and local plans, unless an overriding public need is served and demonstrated.

(4) Recreational, Cultural and Aesthetic Resources.

Collection Facilities: Low-volume transfer and storage facilities may locate in protected, recreational, cultural or aesthetic resource areas, as defined by local, regional, state or national plans or policies, only if necessary to handle hazardous wastes generated by workers, residents, or visitors in these areas.

Treatment and Recycling Facilities and Residuals Repositories: Facilities are prohibited from locating in protected recreational, cultural and aesthetic resource areas, as defined by local, regional, state or national plans or policies.

(5) Mineral Resource Areas.

All Facilities: Facilities are prohibited from locating on lands containing significant mineral deposits, as classified by local plans or California's mineral land class maps and reports, if the extraction of the mineral deposit would be precluded.

(6) Military Lands.

All Facilities: Facilities are prohibited from locating on military lands by the policy of the U.S. Department of Defense (DOD).

F. Ensure Safe Transportation of Hazardous Waste.

(1) Proximity to Waste Generation Areas.

Treatment, Recycling and Collection Facilities: Facilities should locate close to sources of hazardous waste generation (generally industrial areas) to minimize the risks of transportation.

Residuals Repositories: Repositories may be located more distance from the sources of hazardous waste generation than other facilities because of the need for larger land areas and buffer zones.

(2) Proximity and Access to Major Routes.

All Facilities: Facilities shall locate to minimize distance from major transportation routes. Facilities must have good access by roads designed to accommodate heavy vehicles. Travel routes from facilities to major transportation routes shall not pass through residential neighborhoods, shall minimize residential frontages, and shall be demonstrated as safe with regard to road design and construction, accident rates, excessive traffic, etc. The required Health and Safety Assessment will evaluate risks associated with transportation of hazardous wastes.

G. Protect the Social and Economic Goals of the Community.

(1) Consistency with General Plan.

All Facilities: Facilities must be consistent with local planning policies, including the City or County general plan and zoning ordinances.

(2) Fiscal Impact.

All Facilities: A facility's fiscal impact to the City or County must be demonstrated.

(3) Socioeconomic Impacts.

All Facilities: The City or County may require the facility developer to fund an independent study on socioeconomic impacts of the facility.

(4) Consistency with Orange County Hazardous Waste Management Plan.

All Facilities: Facilities shall be consistent with the goals and policies of the Orange County Hazardous Waste Management Plan, and must demonstrate compliance with the siting criteria established herein. Facilities shall be consistent with the fair share principal, and with any interjurisdictional agreements on hazardous waste management. Local needs are to be the primary basis for facility siting criteria decisions, along with regional commitments; facilities are to be designed and sized primarily to meet the hazardous waste management needs of Orange County, or to meet the County's broader regional commitments under an interjurisdictional agreement.

V.E-208.7 Special Development Requirements.

A. General Conditions.

The City may impose conditions on the granting of a Conditional Use Permit for a hazardous waste facility in order to achieve the purposes of this Section and the General Plan and to protect the health, safety and general welfare of the community.

B. Safety and Security.

(1) The owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto any portion of the facility.

(2) The operator shall provide a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility.

(3) An artificial or natural barrier (e.g., a wall or a wall combined with a landscaped berm) shall be constructed to completely surround the facility.

(4) All gates or other entrances into the facility shall be provided with adequate means to control entry at all times. Signs with the legend, "Danger - Hazardous Waste Area - Unauthorized Personnel Keep Out," shall be posted at each entrance to the facility, and at other locations, in sufficient numbers to be seen from any approach. The legend shall be written in English, Spanish and any the language predominate in the area surrounding the facility, and shall be legible from a distance at last 25 feet. Existing signs with a legend other than "Danger - Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

c. Contingency Plan.

(1) The hazardous waste facility is required to have a contingency plan designed to minimize hazards to human health and the environment from fires, explosions, or unplanned release of hazardous waste to air, soil, or surface water. The plan shall be carried out immediately whenever a fire, explosion, or unplanned release occurs.

(2) The contingency plan shall include:

(a) The actions employees must take in response to a fire, explosion, unplanned release of hazardous waste;

(b) Arrangements agreed to by local emergency response officials;

(c) The names, addresses and telephone numbers (office and home) of all persons qualified to act as emergency coordinator. (If more than one name is listed, the order in which they may assume authority shall be given, with one person designated as primary coordinator.) The emergency coordinator shall be available to respond to an emergency and shall have the responsibility for coordinating all emergency response measures. The emergency coordinator shall be familiar with all aspects of the contingency plan, all operations and activities of the facility, the location and characteristics of wastes handled, and general facility layout. The emergency coordinator shall have the authority to commit the resources needed to carry out the contingency plan;

(d) A listing of all emergency equipment at the facility, including its location and an outline of its capabilities;

(e) An evacuation plan for employees where evacuation may be necessary, including signals used to begin evacuation, primary evacuation routes and alternate routes.

(3) Facility Emergency Coordinator Responsibilities shall be identified in the contingency plan to include, at minimum, the following:

(a) In event of emergency (imminent or natural) fire, the emergency coordinator shall immediately activate facility alarms to notify employees and shall contact appropriate state or local emergency response agencies.

(b) In the event of a fire, explosion, or release of any hazardous material, the emergency coordinator shall immediately identify the character, exact source, amount and real extent of any released materials. Concurrently, the emergency coordinator shall assess possible hazards both direct and indirect, to human health or the environment that may result from the emergency.

(c) If the emergency coordinator determines that the facility has had a release, fire or explosion which could threaten human health and the environment outside the facility, the emergency coordinator shall report his findings as per the following Subsections (d) and (e).

(d) If evacuation is necessary, local officials shall be so notified.

(e) The emergency coordinator shall, in every situation, notify the State Office of Emergency Services at 1-800-852-7550 providing the following information:

1. Name and telephone of person reporting;
2. Name and address of facility;
3. Time and type of incident;
4. Name and quantity of material(s) involved;
5. Extent of injuries; and
6. Possible hazard to human health and the environment outside facility.

(f) During the emergency, the emergency coordinator shall take all reasonable measures to ensure that fires, explosions, and releases do not occur or spread, including such measures as:

1. Stopping operations;
2. Collecting and containing released waste; and
3. Removing or isolating containers.

(g) If the facility stops operations during an emergency, the emergency coordinator shall monitor for leaks, pressure build-ups, gas generation or ruptures in valves, pipes or other equipment as appropriate.

(h) Immediately after an emergency, the emergency coordinator shall provide for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material resulting from a release, fire or explosion.

(i) Other activities required of the emergency coordinator after an emergency are:

1. No wastes incompatible with the released material is handled until clean-up is completed; and
2. Emergency equipment is cleaned and ready for use before operations are resumed.

(4) Owner/Operator Responsibilities shall be identified in the contingency plan to include, at minimum, the following:

(a) Notify the State Department of Health Services and appropriate state and local authorities that the above requirements have been met before operations are resumed in the affected area.

(b) Record the time, date and details of any incident which requires implementing the contingency plan.

(c) Within 15 days submit a written report on the incident to the State Department of Health Services. The report shall include:

1. Name, address and telephone number of the owner/operator;

2. Name, address and telephone number of the facility;

3. Date, time and type of incident;

4. Name and quantity of materials involved;

5. Extent of any injuries;

6. Assessment of actual or potential hazards to human health or the environment, where applicable; and

7. An estimate of the quantity of material recovered and its disposition.

(d) A copy of the contingency plan shall be maintained at the facility. A copy shall be sent to Public Safety, Orange County Fire Department, surrounding hospitals, Orange County Health Care Agency, and other regulatory agencies as deemed appropriate.

(e) The contingency plan shall be reviewed and amended when any of the following occur:

1. The facility permit is revised;

2. Applicable regulations are revised;

3. The plan fails in an emergency;

4. Operations at the facility change in a way that materially increases the potential of fire, explosion or unplanned release of hazardous waste;

5. The list of emergency coordinators changes;

6. The list of emergency equipment changes.

D. Monitoring.

(1) Upon reasonable notice, the City, their designated representatives and representatives of other agencies may enter a parcel on which a Conditional Use Permit for a hazardous waste facility has been granted for the purpose of monitoring the operation of the facility.

(2) The holder of a Conditional Use Permit for a hazardous waste facility shall report quarterly to the City the amount, type and disposition of all wastes processed by the facility. Included in the report will be copies of all manifests showing the delivery and types of hazardous waste materials. The report should also include a map showing the exact location (coordinates and elevation) by quantity and types of materials placed in repositories or otherwise stored or disposed of on-site.

(3) All structures shall remain accessible for inspection purposes.

E. Closure Plan.

The owner or operator of a hazardous waste management facility shall submit a written closure plan. A copy of the approved plan and all revisions to the plan shall be kept at the facility until closure is completed. The plan shall identify steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the ends of this intended operating life. The closure plan shall include at least:

(1) A description of how and when the facility will be partially closed, if applicable, and finally closed. The description shall identify the maximum extent of the operation which will be open during the life of the facility.

(2) An estimate of the maximum inventory of wastes in storage and in treatment at any time during the life of the facility.

(3) A description of the steps needed to decontaminate facility equipment during closure.

(4) An estimate of the expected year of closure and a schedule for final closure. The schedule shall include a minimum, the initial time required to close the facility and the time required for intervening closure activities which will allow tracking of the progress of closure.

The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.) The owner or operator shall amend the plan whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure. When the owner or operator requests a permit modification to authorize a change operating plans or facility design, a modification of the closure plan shall be requested at the same time.

(5) The plan shall clearly indicate an effective and ongoing use for the facility after closure. The plan will identify how the subject property will be used after the anticipated life of the project; the nature and type of reclamation, provisions for maintenance of the project and finally the requirements for long-term monitoring of the reclaimed area to insure no hazardous materials are leaking from the site.

(6) The plan shall indicate financial arrangements (irrevocable trust or other form of security arrangement) for the purpose of providing funds for the closure of its site and its long-term post closure monitoring maintenance, per Section V.E-102.1f(3) below.

F. Financial Responsibility.

The owner/operator shall show proof of liability insurance as follows:

(1) The types, amounts, periods of coverage, and provisions for periodic review as to adequacy of coverage shall be specified in the conditions of approval. Required insurance shall include, but not be limited to: general liability insurance, automotive liability insurance, environmental impairment liability insurance, and architect's and engineer's professional liability insurance.

All such insurance shall name the City as an additional insured and shall be maintained for the life of the site and such additional periods as shall be specified in the conditions of approval.

(2) Additionally, coverage will be provided for workers compensation insurance and such other insurance as may be required. Said insurance will name the City as either additional insured or as an additional loss payee. Certificates of Insurance will be submitted to the City annually.

(3) An Irrevocable Trust will be established to provide funds for closure of the site and its long-term post-closure and monitoring and maintenance. Funds for this trust would be provided by the owner/operator of the facility quarterly based on quantity and types of percentage of gross income. The terms of the Trust would be as agreed upon by the project owner/ operator and the City. The terms will be reviewed annually in regards to the amount of funds in the trust and anticipated closure monitoring and maintenance costs. Applicant shall provide a bond in an amount to be determined by the City for purposes of closure of the site.

(4) The owner/operator shall defend, indemnify, and hold harmless the City, its officers, agents, servants, and employees from all claims, actions or liabilities arising out of the issuance of this permit, operations at the facility and transportation of wastes to and from the facility.

V.E-208.8 Local Assessment Committee (LAC).

Pursuant to Section V.E-208.3 (c) of this Section, the City Council shall appoint a seven member Local Assessment Committee (LAC). (Note: The City Council has discretion to appoint additional members to this Committee as they deem appropriate.)

A. The membership of the LAC shall:

(1) Be broadly constituted to reflect the makeup of the community and shall include three representatives of the community at large, two representatives of environmental or public interest groups, and two representatives of affected businesses and industries. Members of the LAC shall have no direct financial interest, as defined in Section 87103 of the California Government Code, in the proposed specified hazardous waste facility project. (Requirement of Section 25199.7(d)(1) of the California Health & Safety Code.)

(2) Advise the City the terms and conditions under which the proposed hazardous waste facility project may be acceptable to the community. The LAC shall do the following:

(a) Enter into a dialogue with the applicant for the proposed hazard waste facility project to reach an understanding with the applicant on both the following:

(1) The measures that should be taken by the applicant in connection with the operation of the proposed hazardous waste facility project to protect the public health, safety, and welfare, and the environment of the City.

(2) The special benefits and remuneration the applicant will provide the City as compensation for the local costs associated with the operation of the facility. (Requirement of Section 25199.7(d)(2)(a) of the California Health and Safety Code.

(3) Represent generally, in meetings with the applicant, the interests of the residents in the City and the interests of adjacent communities. (Requireent of Section 25199.7(d)(2)(B) of the California Health & Safety Code.)

(4) Receive and expend the technical assistance grants made available as specified in Section V.E.211.3(f) of this Ordinance. (Requirement of Section 25199.7(d)(2)(C) of the California Health & Safety Code.)

(5) Adopt rules and procedures which are necessary to perform its duties as outlined herein. (Requirement of Section 25199.7(d)(2)(D) of the California Health & Safety Code.)

(6) Advise the City of the terms, provisions, and conditions for project approval which have been agreed upon by the LAC and the applicant and of any additional information which the LAC deems appropriate. The legislative body of the City may use this advice for this independent consideration of the project. (Requirement of Section 25199.7(d)(2)(E) of the California Health & Safety Code.)

(7) Cease to exist after final administrative action has been taken by the State and local agencies on the permit applications for the project for which the LAC was formed. (Requirement of Section 25199.7(d)(4) of the California Health & Safety Code.)

B. The approval body shall provide staff resources to assist the LAC in performing its duties. (Requirement of Section 25199.7(d)(3) of the California Health & Safety Code.)

C. If the LAC and the applicant cannot resolve any differences through the meetings specified in Section V.E-208.3(e) of this Ordinance, the OPA may assist in this resolution pursuant to Section 25199.4 of the California Health and Safety Code. (Requirement of Section 25199.7(h) of the California Health & Safety Code.)

V.E-208.9 Hearings & Notice.

See "Public Meetings, Hearings & Notice" in Section V.E-214 of this Ordinance.

V.E-208.10 Findings.

In order for the Planning Commission to approve a Hazardous Waste Facility application, the Commission must act on this application prior to approving a Conditional Use Permit for a Hazardous Waste Facility. The Planning Commission shall find that:

A. The project is consistent with the City's General Plan and Zoning Ordinance.

B. The project is not detrimental to the public health, safety or general welfare of the community.

C. The project site is or will be adequately served by roads and other public or private service facilities.

D. The project is consistent with the Regional Fair Share Facility Needs Assessment and siting policies established in the Orange County Hazardous Waste Management Plan.

E. The project complies with the Facility Siting Criteria per Section V.E-208.7.

V.E-208.11 Appeal.

An applicant or an interested person may file an appeal of a land use decision made by the City Council to the Governors Appeals Board within 30 days after the date the City takes final action on the land use decision pursuant to the California Health and Safety Code Section 25199.9 Procedures for filing an appeal are outlined in Sections 25199.14 of the California Health and Safety Code.

See "Appeal Procedures" in Section V.E-215 of this Ordinance.

V.E-208.12 Time Limits.

A. A Conditional Use Permit granted for an off-site hazardous waste facility shall be exercised within 3 years from the effective date thereof, or within such additional time as may be set in the conditions of