Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Acetaldehyde	75-07-0	4.7E+02	1.4E+02		1.4E+02	1.0E-02		1.0E-02	1.0E+00	3.8E+01
Acetamide	60-35-5					7.0E-02		7.0E-02		5.4E+00
Acrolein	107-02-8	2.5E+00	3.5E-01		3.5E-01				5.5E-03	1.4E+01
Acrylamide	79-06-1					4.5E+00		4.5E+00		8.4E-02
Acrylic acid	79-10-7	6.0E+03							1.3E+01	
Acrylonitrile	107-13-1		5.0E+00		5.0E+00	1.0E+00		1.0E+00		3.8E-01
Allyl chloride	107-05-1					2.1E-02		2.1E-02		1.8E+01
Aminoanthraquinone, 2-	117-79-3					3.3E-02		3.3E-02		1.1E+01
Ammonia	7664-41-7	3.2E+03	2.0E+02		2.0E+02				7.1E+00	7.7E+03
Aniline	62-53-3					5.7E-03		5.7E-03		6.6E+01
Arsenic and compounds (inorganic) [3, 4]	7440-38-2	2.0E-01	1.5E-02	3.5E-06	4.0E-04	1.2E+01	1.5E+00	5.4E+01	4.4E-04	7.2E-03
Arsine	7784-42-1	2.0E-01	1.5E-02		4.0E-04				4.4E-04	5.8E-01
Asbestos [5]	1332-21-4					2.2E+02		2.2E+02		1.7E-03
Benzene [3]	71-43-2	1.3E+03	6.0E+01		6.0E+01	1.0E-01		1.0E-01	2.9E+00	3.8E+00
Benzidine (and its salts)	92-87-5					5.0E+02		5.0E+02		7.6E-04
benzidine based dyes						5.0E+02		5.0E+02		7.6E-04
direct black 38	1937-37-7					5.0E+02		5.0E+02		7.6E-04
direct blue 6	2602-46-2					5.0E+02		5.0E+02		7.6E-04
direct brown 95 (technical grade)	16071-86-6					5.0E+02		5.0E+02		7.6E-04
Benzyl chloride	100-44-7	2.4E+02				1.7E-01		1.7E-01	5.3E-01	2.2E+00
Beryllium and compounds [4]	7440-41-7		7.0E-03	2.0E-03	7.0E-03	8.4E+00		8.4E+00		4.7E-02
Bis (2-chloroethyl) ether (Dichloroethyl ether)	111-44-4					2.5E+00		2.5E+00		1.5E-01
Bis (chloromethyl) ether	542-88-1					4.6E+01		4.6E+01		8.2E-03
Butadiene, 1,3-	106-99-0		2.0E+01		2.0E+01	6.0E-01		6.0E-01		6.3E-01
Cadmium and compounds [4]	7440-43-9		2.0E-02	5.0E-04	1.8E-02	1.5E+01		1.5E+01		2.6E-02

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Carbon disulfide [3]	75-15-0	6.2E+03	8.0E+02		8.0E+02				1.4E+01	3.1E+04
Carbon tetrachloride [3] (Tetrachloromethane)	56-23-5	1.9E+03	4.0E+01		4.0E+01	1.5E-01		1.5E-01	4.2E+00	2.5E+00
Chlorinated paraffins	108171-26-2					8.9E-02		8.9E-02		4.2E+00
Chlorine	7782-50-5	2.1E+02	2.0E-01		2.0E-01				4.6E-01	7.7E+00
Chlorine dioxide	10049-04-4		6.0E-01		6.0E-01					2.3E+01
Chloro-o-phenylenediamine, 4-	95-83-0					1.6E-02		1.6E-02		2.4E+01
Chlorobenzene	108-90-7		1.0E+03		1.0E+03					3.9E+04
Chloroform [3]	67-66-3	1.5E+02	3.0E+02		3.0E+02	1.9E-02		1.9E-02	3.3E-01	2.0E+01
Chloropicrin	76-06-2	2.9E+01	4.0E-01		4.0E-01				6.4E-02	1.5E+01
Chloro-o-toluidine, p-	95-69-2					2.7E-01		2.7E-01		1.4E+00
Chromium, (hexavalent, 6+) [4]	18540-29-9		2.0E-01	2.0E-02	2.0E-01	5.1E+02		5.1E+02		7.7E-04
barium chromate [4]	10294-40-3		2.0E-01	2.0E-02	2.0E-01	5.1E+02		5.1E+02		7.7E-04
calcium chromate [4]	13765-19-0		2.0E-01	2.0E-02	2.0E-01	5.1E+02		5.1E+02		7.7E-04
lead chromate [4]	7758-97-6		2.0E-01	2.0E-02	2.0E-01	5.1E+02		5.1E+02		7.7E-04
sodium dichromate [4]	10588-01-9		2.0E-01	2.0E-02	2.0E-01	5.1E+02		5.1E+02		7.7E-04
strontium chromate [4]	7789-06-2		2.0E-01	2.0E-02	2.0E-01	5.1E+02		5.1E+02		7.7E-04
Chromium trioxide (as chromic acid mist) [4]	1333-82-0		2.0E-03	2.0E-02	2.0E-03	5.1E+02		5.1E+02		7.7E-04
Copper and compounds	7440-50-8	1.0E+02							2.2E-01	
Cresidine, p-	120-71-8					1.5E-01		1.5E-01		2.5E+00
Cresols (m-, o-, p-)	1319-77-3		6.0E+02		6.0E+02					2.3E+04
Cupferron	135-20-6					2.2E-01		2.2E-01		1.7E+00
Cyanide and compounds (inorganic)	57-12-5	3.4E+02	9.0E+00		9.0E+00				7.5E-01	3.5E+02
hydrogen cyanide (hydrocyanic acid)	74-90-8	3.4E+02	9.0E+00		9.0E+00				7.5E-01	3.5E+02
Diaminoanisole, 2,4-	615-05-4					2.3E-02		2.3E-02		1.6E+01
Diaminotoluene, 2,4-	95-80-7					4.0E+00		4.0E+00		9.5E-02

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Dibromo-3-chloropropane, 1,2- (DBCP)	96-12-8					7.0E+00		7.0E+00		5.4E-02
Dichlorobenzene, 1,4-	106-46-7		8.0E+02		8.0E+02	4.0E-02		4.0E-02		9.5E+00
Dichlorobenzidine, 3,3-	91-94-1					1.2E+00		1.2E+00		3.2E-01
Dichloroethane, 1,1- (Ethylidene dichloride)	75-34-3					5.7E-03		5.7E-03		6.6E+01
Dichloroethylene, 1,1- [see vinylidene chloride]										
Diesel exhaust particulate matter [6]			5.0E+00		5.0E+00	1.1E+00		1.1E+00		3.4E-01
Diethanolamine	111-42-2		3.0E+00		3.0E+00					1.2E+02
Di(2-ethylhexyl)phthalate (DEHP) [4]	117-81-7					8.4E-03	8.4E-03	9.3E-03		4.1E+01
Dimethylaminoazobenzene, p-	60-11-7					4.6E+00		4.6E+00		8.2E-02
Dimethyl formamide, N,N-	68-12-2		8.0E+01		8.0E+01					3.1E+03
Dinitrotoluene, 2,4-	121-14-2					3.1E-01		3.1E-01		1.2E+00
Dioxane, 1,4- (1,4-diethylene dioxide)	123-91-1	3.0E+03	3.0E+03		3.0E+03	2.7E-02		2.7E-02	6.6E+00	1.4E+01
Epichlorohydrin (1-chloro-2,3-epoxypropane)	106-89-8	1.3E+03	3.0E+00		3.0E+00	8.0E-02		8.0E-02	2.9E+00	4.7E+00
Epoxybutane, 1,2-	106-88-7		2.0E+01		2.0E+01					7.7E+02
Ethyl benzene	100-41-4		2.0E+03		2.0E+03	8.7E-03		8.7E-03		4.3E+01
Ethyl chloride (chloroethane)	75-00-3		3.0E+04		3.0E+04					1.2E+06
Ethylene dibromide (1,2-dibromoethane)	106-93-4		8.0E-01		8.0E-01	2.5E-01		2.5E-01		1.5E+00
Ethylene dichloride (1,2-dichloroethane)	107-06-2		4.0E+02		4.0E+02	7.2E-02		7.2E-02		5.3E+00
Ethylene glycol	107-21-1		4.0E+02		4.0E+02					1.5E+04
Ethylene glycol butyl ether – EGBE [see Glycol ethers]										
Ethylene oxide (1,2-epoxyethane)	75-21-8		3.0E+01		3.0E+01	3.1E-01		3.1E-01		1.2E+00
Ethylene thiourea	96-45-7					4.5E-02		4.5E-02		8.4E+00

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Fluorides		2.4E+02	1.3E+01	4.0E-02	1.3E+01				5.3E-01	5.0E+02
hydrogen fluoride (hydrofluoric acid)	7664-39-3	2.4E+02	1.4E+01	4.0E-02	1.4E+01				5.3E-01	5.4E+02
Formaldehyde	50-00-0	5.5E+01	9.0E+00		9.0E+00	2.1E-02		2.1E-02	1.2E-01	1.8E+01
Glutaraldehyde	111-30-8		8.0E-02		8.0E-02					3.1E+00
Glycol ethers										
ethylene glycol butyl ether – EGBE (2-butoxy ethanol; butyl cellosolve)	111-76-2	1.4E+04							3.1E+01	
ethylene glycol ethyl ether – EGEE (2-ethoxy ethanol; cellosolve) [3]	110-80-5	3.7E+02	7.0E+01		7.0E+01				8.2E-01	2.7E+03
ethylene glycol ethyl ether acetate – EGEEA (2-ethoxyethyl acetate; cellosolve acetate) [3]	111-15-9	1.4E+02	3.0E+02		3.0E+02				3.1E-01	1.2E+04
ethylene glycol methyl ether – EGME (2-methoxy ethanol; methyl cellosolve) [3]	109-86-4	9.3E+01	6.0E+01		6.0E+01				2.1E-01	2.3E+03
ethylene glycol methyl ether acetate – EGMEA (2-methoxyethyl acetate; methyl cellosolve acetate)	110-49-6		9.0E+01		9.0E+01					3.5E+03
Hexachlorobenzene	118-74-1					1.8E+00		1.8E+00		2.1E-01
Hexachlorocyclohexanes (mixed or technical grade) [4]	608-73-1					4.0E+00	4.0E+00	5.7E+00		6.9E-02
Hexachlorocyclohexane, alpha- [4]	319-84-6					4.0E+00	4.0E+00	5.7E+00		6.9E-02
Hexachlorocyclohexane, beta- [4]	319-85-7					4.0E+00	4.0E+00	5.7E+00		6.9E-02
Hexachlorocyclohexane, gamma- (lindane) [4]	58-89-9					1.1E+00	1.1E+00	1.6E+00		2.5E-01
Hexane, n-	110-54-3		7.0E+03		7.0E+03					2.7E+05
Hydrazine	302-01-2		2.0E-01		2.0E-01	1.7E+01		1.7E+01		2.2E-02

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Hydrochloric acid (hydrogen chloride)	7647-01-0	2.1E+03	9.0E+00		9.0E+00				4.6E+00	3.5E+02
Hydrogen cyanide (hydrocyanic acid) [see cyanide & compounds]										
Hydrogen fluoride (hydrofluoric acid) [see fluorides & compounds]										
Hydrogen selenide [see selenium compounds]										
Hydrogen sulfide	7783-06-4	4.2E+01	1.0E+01		1.0E+01				9.3E-02	3.9E+02
Isophorone	78-59-1		2.0E+03		2.0E+03					7.7E+04
Isopropyl alcohol (isopropanol)	67-63-0	3.2E+03	7.0E+03		7.0E+03				7.1E+00	2.7E+05
Lead and compounds (inorganic) [4]	7439-92-1					4.2E-02	8.5E-03	1.2E-01		3.2E+00
lead acetate [4]	301-04-2					4.2E-02	8.5E-03	1.2E-01		3.2E+00
lead phosphate [4]	7446-27-7					4.2E-02	8.5E-03	1.2E-01		3.2E+00
lead subacetate [4]	1335-32-6					4.2E-02	8.5E-03	1.2E-01		3.2E+00
Lindane [see hexachlorocyclohexane, gamma]										
Maleic anhydride	108-31-6		7.0E-01		7.0E-01					2.7E+01
Manganese and compounds	7439-96-5		9.0E-02		9.0E-02					3.5E+00
Mercury and compounds (inorganic) [4]	7439-97-6	6.0E-01	3.0E-02	1.6E-04	7.1E-03				1.3E-03	2.7E-01
mercuric chloride [4]	7487-94-7	6.0E-01	3.0E-02	1.6E-04	7.1E-03				1.3E-03	2.7E-01
Methanol (methyl alcohol)	67-56-1	2.8E+04	4.0E+03		4.0E+03				6.2E+01	1.5E+05
Methyl bromide (bromomethane)	74-83-9	3.9E+03	5.0E+00		5.0E+00				8.6E+00	1.9E+02
Methyl chloroform (1,1,1-trichloroethane)	71-55-6	6.8E+04	1.0E+03		1.0E+03				1.5E+02	3.9E+04
Methyl ethyl ketone (MEK) (2-butanone)	78-93-3	1.3E+04							2.9E+01	
Methyl isocyanate	624-83-9		1.0E+00		1.0E+00					3.9E+01
Methyl tertiary-butyl ether (MTBE)	1634-04-4		8.0E+03		8.0E+03	1.8E-03		1.8E-03		2.1E+02

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Methylene bis (2-chloroaniline), 4,4'- (MOCA)	101-14-4					1.5E+00		1.5E+00		2.5E-01
Methylene chloride (dichloromethane)	75-09-2	1.4E+04	4.0E+02		4.0E+02	3.5E-03		3.5E-03	3.1E+01	1.1E+02
Methylene dianiline, 4,4'- (and its dichloride) [4]	101-77-9		2.0E+01		2.0E+01	1.6E+00	1.6E+00	1.6E+00		2.4E-01
Methylene diphenyl isocyanate	101-68-8		7.0E-01		7.0E-01					2.7E+01
Michler's ketone (4,4 bis (dimethylamino) benzophenone)	90-94-8					8.6E-01		8.6E-01		4.4E-01
Naphthalene [see polycylcic aromatic hydrocarbons]										
Nickel and compounds [4] *(values also apply to:)*	7440-02-0	6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
nickel acetate [4]	373-02-4	6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
nickel carbonate [4]	3333-39-3	6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
nickel carbonyl [4]	13463-39-3	6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
nickel hydroxide [4]	12054-48-7	6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
Nickelocene [4]	1271-28-9	6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
nickel oxide [4]	1313-99-1	6.0E+00	1.0E-01	5.0E-02	1.0E-01	9.1E-01		9.1E-01	1.3E-02	4.3E-01
nickel refinery dust from the pyrometallurgical process [4]		6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
nickel subsulfide [4]	12035-72-2	6.0E+00	5.0E-02	5.0E-02	5.0E-02	9.1E-01		9.1E-01	1.3E-02	4.3E-01
Nitric acid	7697-37-2	8.6E+01							1.9E-01	
Nitrosodi-n-butylamine, N-	924-16-3					1.1E+01		1.1E+01		3.4E-02
Nitrosodi-n-propylamine, N-	621-64-7					7.0E+00		7.0E+00		5.4E-02
Nitrosodiethylamine, N-	55-18-5					3.6E+01		3.6E+01		1.1E-02
Nitrosodimethylamine, N-	62-75-9					1.6E+01		1.6E+01		2.4E-02
Nitrosodiphenylamine, N-	86-30-6					9.0E-03		9.0E-03		4.2E+01
Nitroso-n-methylethylamine, N-	10595-95-6					2.2E+01		2.2E+01		1.7E-02
Nitrosomorpholine, N-	59-89-2					6.7E+00		6.7E+00		5.6E-02

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Nitrosopiperidine, N-	100-75-4					9.4E+00		9.4E+00		4.0E-02
Nitrosopyrrolidine, N-	930-55-2					2.1E+00		2.1E+00		1.8E-01
Nitrosodiphenylamine, p-	156-10-5					2.2E-02		2.2E-02		1.7E+01
Ozone	10028-15-6	1.8E+02							4.0E-01	
Pentachlorophenol	87-86-5					1.8E-02		1.8E-02		2.1E+01
Perchloroethylene (tetrachloroethylene)	127-18-4	2.0E+04	3.5E+01		3.5E+01	2.1E-02		2.1E-02	4.4E+01	1.8E+01
Phenol	108-95-2	5.8E+03	2.0E+02		2.0E+02				1.3E+01	7.7E+03
Phosgene	75-44-5	4.0E+00							8.8E-03	
Phosphine	7803-51-2		8.0E-01		8.0E-01					3.1E+01
Phosphoric acid	7664-38-2		7.0E+00		7.0E+00					2.7E+02
Phthalic anhydride	85-44-9		2.0E+01		2.0E+01					7.7E+02
PCBs (polychlorinated biphenyls) [low risk] [4, 7]	1336-36-3			2.0E-05		7.0E-02	7.0E-02			4.7E-01
PCBs (polychlorinated biphenyls) [high risk] [4, 7]	1336-36-3			2.0E-05		2.0E+00	2.0E+00	2.7E+01		1.7E-02
Polychlorinated dibenzo-p-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), and dioxin-like polychlorinated biphenyls (PCBs) (as 2,3,7,8-PCDD equivalent) [4, 8]	See Footnote 8		4.0E-05	1.0E-08	3.8E-06	1.3E+05	1.3E+05	1.3E+06		3.4E-07
Polycyclic aromatic hydrocarbon (PAH) (as B(a)P-equivalent) [4, 9]	See Footnote 9					3.9E+00	1.2E+01	6.4E+01		6.9E-03
Naphthalene	91-20-3		9.0E+00		9.0E+00	1.2E-01		1.2E-01		3.2E+00
Potassium bromate	7758-01-2		1.7E+00		1.7E+00	4.9E-01		4.9E-01		7.7E-1
Propane sultone, 1,3-	1120-71-4					2.4E+00		2.4E+00		1.6E-01
Propylene (propene)	115-07-1		3.0E+03		3.0E+03					1.2E+05
Propylene glycol monomethyl ether	107-98-2		7.0E+03		7.0E+03					2.7E+05
Propylene oxide	75-56-9	3.1E+03	3.0E+01		3.0E+01	1.3E-02		1.3E-02	6.8E+00	2.9E+01

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Selenium and compounds	7782-49-2		2.0E+01		2.0E+01					7.7E+02
hydrogen selenide	7783-07-5	5.0E+00							1.1E-02	
selenium sulfide	7446-34-6		2.0E+01		2.0E+01					7.7E+02
Silica (crystalline, respirable)	7631-86-9		3.0E+00		3.0E+00					1.2E+02
Sodium hydroxide	1310-73-2	8.0E+00							1.8E-02	
Styrene	100-42-5	2.1E+04	9.0E+02		9.0E+02				4.6E+01	3.5E+04
Sulfates		1.2E+02							2.6E-01	
Sulfuric acid and oleum	7664-93-9	1.2E+02	1.0E+00		1.0E+00				2.6E-01	3.9E+01
Sulfuric acid	7664-93-9	1.2E+02	1.0E+00		1.0E+00				2.6E-01	3.9E+01
sulfur trioxide	7446-11-9	1.2E+02	1.0E+00		1.0E+00				2.6E-01	3.9E+01
Oleum	8014-95-7	1.2E+02	1.0E+00		1.0E+00				2.6E-01	3.9E+01
Tetrachloroethane, 1,1,2,2-	79-34-5					2.0E-01		2.0E-01		1.9E+00
Thioacetamide	62-55-5					6.1E+00		6.1E+00		6.2E-02
Toluene	108-88-3	3.7E+04	3.0E+02		3.0E+02				8.2E+01	1.2E+04
Toluene diisocyantates	26471-62-5		7.0E-02		7.0E-02	3.9E-02		3.9E-02		2.7E+00
toluene-2,4-diisocyanate	584-84-9		7.0E-02		7.0E-02	3.9E-02		3.9E-02		2.7E+00
toluene-2,6-diisocyanate	91-08-7		7.0E-02		7.0E-02	3.9E-02		3.9E-02		2.7E+00
Trichloroethane, 1,1,1 (see methyl chloroform)										
Trichloroethane, 1,1,2- (vinyl trichloride)	79-00-5					5.7E-02		5.7E-02		6.6E+00
Trichloroethylene	79-01-6		6.0E+02		6.0E+02	7.0E-03		7.0E-03		5.4E+01
Trichlorophenol, 2,4,6-	88-06-2					7.0E-02		7.0E-02		5.4E+00
Triethylamine	121-44-8	2.8E+03	2.0E+02		2.0E+02				6.2E+00	7.7E+03
Urethane (ethyl carbamate)	51-79-6					1.0E+00		1.0E+00		3.8E-01
Vanadium Compounds										
vanadium (fume or dust)	7440-62-2	3.0E+01							6.6E-02	
vanadium pentoxide	1314-62-1	3.0E+01							6.6E-02	

Table 2-5-1 Toxic Air Contaminant Trigger Levels

Chemical	CAS Number [1]	Acute Inhalation REL ($\mu g/m^3$)	Chronic Inhalation REL ($\mu g/m^3$)	Chronic Oral REL (mg/kg-day)	CREL Weighting Factor[10]	Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	CP Weighting Factor[10]	Acute (1-hr. max.) Trigger Level [2] (lb/hour)	Chronic Trigger Level [2] (lb/year)
Vinyl acetate	108-05-4		2.0E+02		2.0E+02					7.7E+03
Vinyl chloride (chloroethylene)	75-01-4	1.8E+05				2.7E-01		2.7E-01	4.0E+02	1.4E+00
Vinylidene chloride (1,1-dichloroethylene)	75-35-4		7.0E+01		7.0E+01					2.7E+03
Xylenes (mixed isomers)	1330-20-7	2.2E+04	7.0E+02		7.0E+02				4.9E+01	2.7E+04
m-xylene	108-38-3	2.2E+04	7.0E+02		7.0E+02				4.9E+01	2.7E+04
o-xylene	95-47-6	2.2E+04	7.0E+02		7.0E+02				4.9E+01	2.7E+04
p-xylene	106-42-3	2.2E+04	7.0E+02		7.0E+02				4.9E+01	2.7E+04

(Amended January 6, 2010)

---

[1] **Chemical Abstract Number (CAS):**
CAS numbers are not available for many chemical groupings and mixtures.

[2] **Trigger Levels:**
All trigger levels are presented in scientific notation (i.e., exponential form based on powers of the based number 10.) For example: 4.9E+01 is equivalent to $4.9X10^{1}$, or 49; 6.6E-02 is equivalent to $6.6X10^{-2}$, or 0.066; and 5.8E+00 is equivalent to $5.8X10^{0}$, or 5.8.

[3] **Averaging Period for Non-Cancer Acute Trigger Levels:**
The averaging period for non-cancer acute trigger levels is generally a one-hour exposure. However, some are based on several hours of exposure. The screening levels for the following substances should be compared to estimated emissions occurring over a time period other than maximum one-hour emissions (e.g., a 4-hour trigger level should be compared to the maximum 4-hour average concentration estimated from the maximum emissions occurring in a 4-hour period). However, for conservative screening purposes, a maximum one-hour emission level can be compare to all acute trigger levels.
4-hour: arsenic and inorganic arsenic compounds
6-hour: benzene, carbon disulfide, ethylene glycol ethyl ether, ethylene glycol ethyl ether acetate, ethylene glycol methyl ether
7-hour: carbon tetrachloride, chloroform

[4] **Chemicals for Which Multi-Pathway Risks are Assessed:**
Trigger levels are adjusted to include the impact from default non-inhalation pathways.

[5] **Asbestos:**
The units for the inhalation cancer potency factor for asbestos are (100 PCM fibers/m^3)$^{-1}$. A conversion factor of 100 fibers/0.003 μg can be multiplied by a receptor concentration of asbestos expressed in μg/m^3. Unless other information necessary to estimate the concentration (fibers/m^3) of asbestos at receptors of interest is available, an inhalation cancer potency factor of 220 (mg/kg-day)$^{-1}$ is available.

[6] **Diesel Exhaust Particulate Matter:**
Diesel exhaust particulate matter should be used as a surrogate for all TAC emissions from diesel-fueled compression-ignition internal combustion engines. However, diesel exhaust particulate matter should not be used for other types of diesel-fueled combustion equipment, such as boilers or turbines. For equipment other than diesel-fueled compression-ignition internal combustion engines, emissions should be determined for individual TACs and compared to the appropriate trigger level for each TAC.

[7] **Polychlorinated Biphenyls:**
Low Risk: Use in cases where congeners with more than four chlorines comprise less than one-half percent of total polychlorinated biphenyls.
High Risk: Use in cases where congeners with more than four chlorines do not comprise less than one-half percent of total polychlorinated biphenyls.

[8] **Polychlorinated Dibenzo-p-Dioxins (PCDDs), Polychlorinated Dibenzofurans (PCDFs), and Dioxin-like Polychlorinated Biphenyls (PCBs):** These substances are PCDDs, PCDFs, and dioxin-like PCBs for which OEHHA has adopted the World Health Organization (WHO_{97}) Toxicity Equivalency Factor (TEF) scheme for evaluating cancer risk due to exposure to samples containing mixtures of PCDDs, PCDFs, and dioxin-like PCBs. PCDDs, PCDFs, and dioxin-like PCBs should be evaluated as PCDD-equivalent. This evaluation process consists of multiplying individual PCDD-, PCDF-, and dioxin-like PCB-specific emission levels with their corresponding TEFs listed below. The sum of these products is the PCDD-equivalent and should be compared to the PCDD-equivalent trigger level.

PCDD	CAS Number	TEF
2,3,7,8-tetrachlorodibenzo-p-dioxin	1746-01-6	1.0
1,2,3,7,8-pentachlorodibenzo-p-dioxin	40321-76-4	1.0
1,2,3,4,7,8-hexachlorodibenzo-p-dioxin	39227-28-6	0.1
1,2,3,6,7,8-hexachlorodibenzo-p-dioxin	57653-85-7	0.1
1,2,3,7,8,9-hexachlorodibenzo-p-dioxin	19408-74-3	0.1
1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin	35822-46-9	0.01
1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin	3268-87-9	0.0001

PCDF	CAS Number	TEF
2,3,7,8-tetrachlorodibenzofuran	5120-73-19	0.1
1,2,3,7,8-pentachlorodibenzofuran	57117-41-6	0.05
2,3,4,7,8-pentachlorodibenzofuran	57117-31-4	0.5
1,2,3,4,7,8-hexachlorodibenzofuran	70648-26-9	0.1
1,2,3,6,7,8-hexachlorodibenzofuran	57117-44-9	0.1
1,2,3,7,8,9-hexachlorodibenzofuran	72918-21-9	0.1
2,3,4,6,7,8-hexachlorodibenzofuran	60851-34-5	0.1
1,2,3,4,6,7,8-heptachlorodibenzofuran	67562-39-4	0.01
1,2,3,4,7,8,9-heptachlorodibenzofuran	55673-89-7	0.01
1,2,3,4,6,7,8,9-octachlorodibenzofuran	39001-02-0	0.0001

Dioxin-like PCBs (coplanar PCBs)	CAS Number	TEF
PCB 77 (3,3'4,4'-tetrachlorobiphenyl)	32598-13-3	0.0001
PCB 81 (3,4,4',5-tetrachlorobiphenyl)	70362-50-4	0.0001
PCB 105 (2,3,3'4,4'-pentachlorobiphenyl)	32598-14-4	0.0001
PCB 114 (2,3,4,4'5-pentachlorobiphenyl)	74472-37-0	0.0005
PCB 118 (2,3',4,4',5-pentachlorobiphenyl)	31508-00-6	0.0001
PCB 123 (2',3,4,4',5-pentachlorobiphenyl)	65510-44-3	0.0001
PCB 126 (3,3',4,4',5-pentachlorobiphenyl)	57465-28-8	0.1
PCB 156 (2,3,3',4,4',5-hexachlorobiphenyl)	38380-08-4	0.0005
PCB 157 (2,3,3',4,4',5'-hexachlorobiphenyl)	69782-90-7	0.0005
PCB 167 (2,3',4,4',5,5'-hexachlorobiphenyl)	52663-72-6	0.00001
PCB 169 (3,3',4,4',5,5'-hexachlorobiphenyl)	32774-16-6	0.01
PCB 170 (2,2',3,3',4,4',5-heptachlorobiphenyl)	35065-30-6	0
PCB 180 (2,2',3,4,4',5,5'-heptachlorobiphenyl)	35065-29-3	0
PCB 189 (2,3,3',4,4',5,5'-heptachlorobiphenyl)	39635-31-9	0.0001

[9] **Polycyclic Aromatic Hydrocarbons (PAHs):**
These substances are PAH-derivatives that have OEHHA-developed Potency Equivalency Factors (PEFs). PAHs should be evaluated as benzo(a)pyrene-equivalents. This evaluation process consists of multiplying individual PAH-specific emission levels with their corresponding PEFs listed below. The sum of these products is the benzo(a)pyrene-equivalent level and should be compared to the benzo(a)pyrene equivalent trigger level.

PAH or derivative	CAS Number	PEF
benz(a)anthracene	56-55-3	0.1
benzo(b)fluoranthene	205-99-2	0.1
benzo(j)fluoranthene	205-82-3	0.1
benzo(k)fluoranthene	207-08-9	0.1
benzo(a)pyrene	50-32-8	1.0
chrysene	218-01-9	0.01
dibenz(a,j)acridine	224-42-0	0.1
dibenz(a,h)acridine	226-36-8	0.1
dibenz(a,h)anthracene	53-70-3	1.05
7H-dibenzo(c,g)carbazole	194-59-2	1.0
dibenzo(a,e)pyrene	192-65-4	1.0
dibenzo(a,h)pyrene	189-64-0	10
dibenzo(a,i)pyrene	189-55-9	10
dibenzo(a,l)pyrene	191-30-0	10
7,12-dimethylbenz(a)anthracene	57-97-6	64
indeno(1,2,3-cd)pyrene	193-39-5	0.1
5-methylchrysene	3697-24-3	1.0
3-methylcholanthrene	56-49-5	5.7
5-nitroacenaphthene	602-87-9	0.03
1-nitropyrene	5522-43-0	0.1
4-nitropyrene	57835-92-4	0.1
1,6-dinitropyrene	42397-64-8	10
1,8-dinitropyrene	42397-65-9	1.0
6-nitrocrysene	7496-02-8	10
2-nitrofluorene	607-57-8	0.01

[10] **CREL (chronic Reference Exposure Level) and CP (Cancer Potency) Weighting Factors:** These factors are to be used for purposes of calculating toxicity weighted emissions. Factors were developed assuming multi-pathway exposure where applicable, and continuously operating sources for residential receptor exposure.

(Amended January 6, 2010)