South Coast Air Quality Management District

PERMIT APPLICATION PACKAGE "M"

For Use in Conjunction with the
RISK ASSESSMENT PROCEDURES
for Rules 1401, 1401.1, and 212
Version 8.0

Revised March 2016

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RISK ASSESSMENT PROCEDURES
FOR RULES 1401, 1401.1, AND 212, VERSION 8.0

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EFFECTIVE FOR APPLICATIONS DEEMED COMPLETE ON OR AFTER July 5, 2015

Revised March 2016

Table – 1.1
Screening Emission Levels

THESE ARE NOT EMISSION LIMITS. Exceedances of these levels indicate that a screening health risk assessment should be performed.

Date Toxicity Criteria Last Updated				Pollutant		Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Cancer	Chronic	8-hr Chronic	Acute	Toxic Air Contaminant	CAS No	Emissions at 25 m (lb/yr)	Emissions at 50 m (lb/yr)	Emissions at 100 m (lb/yr)	Emissions at 25 m, (lb/hr)	Emissions at 50 m, (lb/hr)	Emissions at 100 m, (lb/hr)
4/99[5/93]	12/19/08	12/19/08	12/19/08	Acetaldehyde	75-07-0	5.66E+00 (ca)	1.72E+01 (ca)	3.51E+01 (ca)	5.37E-01	1.40E+00	2.09E+00
4/1/99				Acetamide	60-35-5	8.08E-01 (ca)	2.45E+00 (ca)	5.01E+00 (ca)			
	12/19/08	12/19/08	12/19/08	Acrolein	107-02-8	6.25E+00 (8hr)	2.91E+01 (8hr)	8.31E+01 (ch)	2.86E-03	7.45E-03	1.11E-02
4/99[7/90]				Acrylamide	79-06-1	1.26E-02 (ca)	3.82E-02 (ca)	7.80E-02 (ca)			
			4/1/99	Acrylic Acid	79-10-7				6.85E+00	1.79E+01	2.67E+01
4/99[1/91]	12/1/01			Acrylonitrile	107-13-1	5.66E-02 (ca)	1.72E-01 (ca)	3.51E-01 (ca)			
4/1/99				Allyl Chloride	107-05-1	2.69E+00 (ca)	8.18E+00 (ca)	1.67E+01 (ca)			
4/1/99				2-Aminoanthraquinone	117-79-3	1.71E+00 (ca)	5.21E+00 (ca)	1.06E+01 (ca)			
	2/1/00		4/1/99	Ammonia	7664-41-7	7.66E+03 (ch)	2.33E+04 (ch)	4.75E+04 (ch)	3.66E+00	9.53E+00	1.43E+01
4/1/99				Aniline	62-53-3	9.93E+00 (ca)	3.01E+01 (ca)	6.16E+01 (ca)			
7/1/90	12/19/08	12/19/08	12/19/08	Arsenic and Compounds (Inorganic)	7440-38-2	4.86E-04 (ca)	1.47E-03 (ca)	3.01E-03 (ca)	2.28E-04	5.96E-04	8.91E-04
	12/19/08	12/19/08	12/19/08	Arsine	7784-42-1	1.34E-01 (8hr)	6.24E-01 (8hr)	1.96E+00 (8hr)	2.28E-04	5.96E-04	8.91E-04
3/1/86				Asbestos	1332-21-4	7.72E-07 (ca)	2.34E-06 (ca)	4.78E-06 (ca)			
1/1/85	6/27/14	6/27/14	6/27/14	Benzene	71-43-2	5.66E-01 (ca)	1.72E+00 (ca)	3.51E+00 (ca)	3.08E-02	8.04E-02	1.20E-01
4/99[1/91]				Benzidine (and Its Salts)	92-87-5	1.13E-04 (ca)	3.44E-04 (ca)	7.02E-04 (ca)			
4/99[1/91]				Benzidine Based Dyes	1020	1.13E-04 (ca)	3.44E-04 (ca)	7.02E-04 (ca)			
4/99[1/91]				Direct Black	1937-37-7	1.13E-04 (ca)	3.44E-04 (ca)	7.02E-04 (ca)			
4/99[1/91]				Direct Blue	2602-46-2	1.13E-04 (ca)	3.44E-04 (ca)	7.02E-04 (ca)			
4/99[1/91]				Direct Brown (Technical Grade)	16071-86-6	1.13E-04 (ca)	3.44E-04 (ca)	7.02E-04 (ca)			
4/1/99			4/1/99	Benzyl Chloride	100-44-7	3.33E-01 (ca)	1.01E+00 (ca)	2.06E+00 (ca)	2.74E-01	7.15E-01	1.07E+00
4/99[7/90]	12/1/01			Beryllium and Compounds	7440-41-7	6.74E-03 (ca)	2.05E-02 (ca)	4.18E-02 (ca)			
4/1/99				Bis(2-Chloroethyl)Ether (Dichloroethyl Ether)	111-44-4	2.26E-02 (ca)	6.87E-02 (ca)	1.40E-01 (ca)			
4/99[1/91]				Bis(Chloromethyl)Ether	542-88-1	1.23E-03 (ca)	3.74E-03 (ca)	7.63E-03 (ca)			
4/99[10/93]				Potassium Bromate	7758-01-2	1.15E-01 (ca)	3.51E-01 (ca)	7.16E-01 (ca)			
7/1/92	7/29/13	7/29/13	7/29/13	1,3-Butadiene	106-99-0	9.43E-02 (ca)	2.86E-01 (ca)	5.85E-01 (ca)	7.54E-01	1.97E+00	2.94E+00
1/1/87	1/1/01			Cadmium and Compounds	7440-43-9	3.77E-03 (ca)	1.15E-02 (ca)	2.34E-02 (ca)			
	5/13/02		4/1/99	Carbon Disulfide	75-15-0	3.06E+04 (ch)	9.30E+04 (ch)	1.90E+05 (ch)	7.08E+00	1.85E+01	2.76E+01
9/1/87	1/1/01		4/1/99	Carbon Tetrachloride (Tetrachloromethane)	56-23-5	3.77E-01 (ca)	1.15E+00 (ca)	2.34E+00 (ca)	2.17E+00	5.66E+00	8.47E+00
4/1/99				Chlorinated Paraffins	108171-26-2	6.36E-01 (ca)	1.93E+00 (ca)	3.94E+00 (ca)			
	2/1/00		4/1/99	Chlorine	7782-50-5	7.66E+00 (ch)	2.33E+01 (ch)	4.75E+01 (ch)	2.40E-01	6.25E-01	9.36E-01
	1/1/01			Chlorine Dioxide	10049-04-4	2.30E+01 (ch)	6.98E+01 (ch)	1.42E+02 (ch)			
4/1/99				4-Chloro-o-Phenylenediamine	95-83-0	3.54E+00 (ca)	1.07E+01 (ca)	2.19E+01 (ca)			
	1/1/01			Chlorobenzene	108-90-7	3.83E+04 (ch)	1.16E+05 (ch)	2.37E+05 (ch)			
12/1/90	4/1/00		4/1/99	Chloroform	67-66-3	2.98E+00 (ca)	9.04E+00 (ca)	1.85E+01 (ca)	1.71E-01	4.47E-01	6.68E-01
4/1/99				Pentachlorophenol	87-86-5	3.14E+00 (ca)	9.55E+00 (ca)	1.95E+01 (ca)			
4/99[1/91]				2,4,6-Trichlorophenol	88-06-2	8.08E-01 (ca)	2.45E+00 (ca)	5.01E+00 (ca)			
	12/1/01		4/1/99	Chloropicrin	76-06-2	1.53E+01 (ch)	4.65E+01 (ch)	9.50E+01 (ch)	3.31E-02	8.64E-02	1.29E-01
4/1/99				p-Chloro-o-Toluidine	95-69-2	2.10E-01 (ca)	6.36E-01 (ca)	1.30E+00 (ca)			
1/1/86	1/1/01			Chromium 6+	18540-29-9	6.95E-05 (ca)	2.11E-04 (ca)	4.31E-04 (ca)			
1/1/86	1/1/01			Barium Chromate	10294-40-3	3.38E-04 (ca)	1.03E-03 (ca)	2.10E-03 (ca)			
1/1/86	1/1/01			Calcium Chromate	13765-19-0	2.09E-04 (ca)	6.33E-04 (ca)	1.29E-03 (ca)			
1/1/86	1/1/01			Lead Chromate	7758-97-6	4.32E-04 (ca)	1.31E-03 (ca)	2.68E-03 (ca)			
1/1/86	1/1/01			Sodium Dichromate	10588-01-9	1.75E-04 (ca)	5.31E-04 (ca)	1.09E-03 (ca)			
1/1/86	1/1/01			Strontium Chromate	7789-06-2	2.72E-04 (ca)	8.26E-04 (ca)	1.69E-03 (ca)			

Table – 1.1 (continued)
Screening Emission Levels

Date Toxicity Criteria Last Updated				Pollutant		Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Cancer	**Chronic**	**8-hr Chronic**	**Acute**	**Toxic Air Contaminant**	**CAS No**	**Emissions at 25 m (lb/yr)**	**Emissions at 50 m (lb/yr)**	**Emissions at 100 m (lb/yr)**	**Emissions at 25 m, (lb/hr)**	**Emissions at 50 m, (lb/hr)**	**Emissions at 100 m, (lb/hr)**
1/1/86	1/1/01			Chromic Trioxide (as Chromic Acid Mist)	1333-82-0	1.34E-04 (ca)	4.06E-04 (ca)	8.28E-04 (ca)			
			4/1/99	Copper and Compounds	7440-50-8				1.14E-01	2.98E-01	4.46E-01
4/1/99				p-Cresidine	120-71-8	3.77E-01 (ca)	1.15E+00 (ca)	2.34E+00 (ca)			
	1/1/01			Cresols (Mixtures of)	1319-77-3	2.30E+04 (ch)	6.98E+04 (ch)	1.42E+05 (ch)			
	1/1/01			m-Cresol	108-39-4	2.30E+04 (ch)	6.98E+04 (ch)	1.42E+05 (ch)			
	1/1/01			o-Cresol	95-48-7	2.30E+04 (ch)	6.98E+04 (ch)	1.42E+05 (ch)			
	1/1/01			p-Cresol	106-44-5	2.30E+04 (ch)	6.98E+04 (ch)	1.42E+05 (ch)			
4/1/99				Cupferron	135-20-6	2.57E-01 (ca)	7.81E-01 (ca)	1.59E+00 (ca)			
	4/1/00		4/1/99	Hydrogen Cyanide (Hydrocyanic Acid)	74-90-8	3.45E+02 (ch)	1.05E+03 (ch)	2.14E+03 (ch)	3.88E-01	1.01E+00	1.51E+00
4/1/99				2,4-Diaminoanisole	615-05-4	2.46E+00 (ca)	7.47E+00 (ca)	1.53E+01 (ca)			
4/1/99				2,4-Diaminotoluene	95-80-7	1.41E-02 (ca)	4.30E-02 (ca)	8.77E-02 (ca)			
4/99[1/92]				1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	8.08E-03 (ca)	2.45E-02 (ca)	5.01E-02 (ca)			
4/99[1/91]	1/1/01			p-Dichlorobenzene	106-46-7	1.41E+00 (ca)	4.30E+00 (ca)	8.77E+00 (ca)			
4/99[1/91]				3,3-Dichlorobenzidine	91-94-1	4.72E-02 (ca)	1.43E-01 (ca)	2.92E-01 (ca)			
4/1/99				1,1,-Dichloroethane (Ethylidene Dichloride)	75-34-3	9.93E+00 (ca)	3.01E+01 (ca)	6.16E+01 (ca)			
4/99[1/92]				Di(2-Ethylhexyl)Phthalate (DEHP)	117-81-7	1.29E+00 (ca)	3.92E+00 (ca)	8.00E+00 (ca)			
	12/1/01			Diethanolamine	111-42-2	1.15E+02 (ch)	3.49E+02 (ch)	7.12E+02 (ch)			
4/1/99				p-Dimethylaminoazobenzene	60-11-7	1.23E-02 (ca)	3.74E-02 (ca)	7.63E-02 (ca)			
	1/1/01			N,N-Dimethyl Formamide	68-12-2	3.06E+03 (ch)	9.30E+03 (ch)	1.90E+04 (ch)			
4/1/99				2,4-Dinitrotoluene	121-14-2	1.83E-01 (ca)	5.54E-01 (ca)	1.13E+00 (ca)			
4/99[1/91]	4/1/00		4/1/99	1,4-Dioxane (1,4-Diethylene Dioxide)	123-91-1	2.10E+00 (ca)	6.36E+00 (ca)	1.30E+01 (ca)	3.43E+00	8.93E+00	1.34E+01
1/1/88				1,2-Diphenylhydrazine {Hydrazobenzene}	122-66-7	6.47E-02 (ca)	1.96E-01 (ca)	4.01E-01 (ca)			
4/99[1/92]	1/1/01		4/1/99	Epichlorohydrin (1-Chloro-2,3-Epoxypropane)	106-89-8	7.07E-01 (ca)	2.15E+00 (ca)	4.39E+00 (ca)	1.48E+00	3.87E+00	5.79E+00
	1/1/01			1,2-Epoxybutane	106-88-7	7.66E+02 (ch)	2.33E+03 (ch)	4.75E+03 (ch)			
11/7/07	2/1/00			Ethyl Benzene	100-41-4	6.50E+00 (ca)	1.97E+01 (ca)	4.03E+01 (ca)			
	4/1/00			Ethyl Chloride (Chloroethane)	75-00-3	1.15E+06 (ch)	3.49E+06 (ch)	7.12E+06 (ch)			
7/1/85	12/1/01			Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	2.26E-01 (ca)	6.87E-01 (ca)	1.40E+00 (ca)			
9/1/85	1/1/01			Ethylene Dichloride (1,2-Dichloroethane)	107-06-2	7.86E-01 (ca)	2.39E+00 (ca)	4.87E+00 (ca)			
	4/1/00			Ethylene Glycol	107-21-1	1.53E+04 (ch)	4.65E+04 (ch)	9.50E+04 (ch)			
11/1/87	1/1/01			Ethylene Oxide (1,2-Epoxyethane)	75-21-8	1.83E-01 (ca)	5.54E-01 (ca)	1.13E+00 (ca)			
4/1/99				Ethylene Thiourea	96-45-7	1.26E+00 (ca)	3.82E+00 (ca)	7.80E+00 (ca)			
	8/14/03		4/1/99	Flourides	1101	8.73E+01 (ch)	2.65E+02 (ch)	5.41E+02 (ch)	2.74E-01	7.15E-01	1.07E+00
	8/14/03		4/1/99	Hydrogen Fluoride (Hydrofluoric Acid)	7664-39-3	8.84E+01 (ch)	2.68E+02 (ch)	5.48E+02 (ch)	2.74E-01	7.15E-01	1.07E+00
3/1/92	12/19/08	12/19/08	12/19/08	Formaldehyde	50-00-0	2.69E+00 (ca)	8.18E+00 (ca)	1.67E+01 (ca)	6.28E-02	1.64E-01	2.45E-01
	1/1/01			Glutaraldehyde	111-30-8	3.06E+00 (ch)	9.30E+00 (ch)	1.90E+01 (ch)			
			4/1/99	Ethylene Glycol Butyl Ether – EGBE	111-76-2				1.60E+01	4.17E+01	6.24E+01
	2/1/00		4/99[1/92]	Ethylene Glycol Ethyl Ether – EGEE	110-80-5	2.68E+03 (ch)	8.14E+03 (ch)	1.66E+04 (ch)	4.23E-01	1.10E+00	1.65E+00
	2/1/00		4/1/99	Ethylene Glycol Ethyl Ether Acetate – EGEEA	111-15-9	1.15E+04 (ch)	3.49E+04 (ch)	7.12E+04 (ch)	1.60E-01	4.17E-01	6.24E-01
	2/1/00		4/1/99	Ethylene Glycol Methyl Ether – EGME	109-86-4	2.30E+03 (ch)	6.98E+03 (ch)	1.42E+04 (ch)	1.06E-01	2.77E-01	4.14E-01

Table – 1.1 (continued)
Screening Emission Levels

Date Toxicity Criteria Last Updated				Pollutant		Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Cancer	**Chronic**	**8-hr Chronic**	**Acute**	**Toxic Air Contaminant**	**CAS No**	**Emissions at 25 m (lb/yr)**	**Emissions at 50 m (lb/yr)**	**Emissions at 100 m (lb/yr)**	**Emissions at 25 m, (lb/hr)**	**Emissions at 50 m, (lb/hr)**	**Emissions at 100 m, (lb/hr)**
	2/1/00			Ethylene Glycol Methyl Ether Acetate – EGMEA	110-49-6	3.45E+03 (ch)	1.05E+04 (ch)	2.14E+04 (ch)			
4/99[1/91]				Hexachlorobenzene	118-74-1	3.14E-02 (ca)	9.55E-02 (ca)	1.95E-01 (ca)			
4/99[1/91]				Hexachlorocyclohexanes	608-73-1	2.63E-03 (ca)	7.97E-03 (ca)	1.63E-02 (ca)			
4/99[1/91]				Alpha-Hexachlorocyclohexane	319-84-6	2.63E-03 (ca)	7.97E-03 (ca)	1.63E-02 (ca)			
4/99[1/91]				Beta- Hexachlorocyclohexane	319-85-7	2.63E-03 (ca)	7.97E-03 (ca)	1.63E-02 (ca)			
4/1/1999				Gamma-Hexachlorocyclohexane (Lindane)	58-89-9	9.55E-03 (ca)	2.90E-02 (ca)	5.92E-02 (ca)			
	4/1/00			n-Hexane	110-54-3	2.68E+05 (ch)	8.14E+05 (ch)	1.66E+06 (ch)			
4/99[7/90]	1/1/01			Hydrazine	302-01-2	3.33E-03 (ca)	1.01E-02 (ca)	2.06E-02 (ca)			
	2/1/00		4/1/99	Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	3.45E+02 (ch)	1.05E+03 (ch)	2.14E+03 (ch)	2.40E+00	6.25E+00	9.36E+00
	4/1/00		4/99[7/90]	Hydrogen Sulfide	7783-06-4	3.83E+02 (ch)	1.16E+03 (ch)	2.37E+03 (ch)	4.80E-02	1.25E-01	1.87E-01
	12/1/01			Isophorone	78-59-1	7.66E+04 (ch)	2.33E+05 (ch)	4.75E+05 (ch)			
	2/1/00		4/1/99	Isopropyl Alcohol (Isopropanol)	67-63-0	2.68E+05 (ch)	8.14E+05 (ch)	1.66E+06 (ch)	3.66E+00	9.53E+00	1.43E+01
4/1/97				Lead and Compounds (Inorganic)	7439-92-1	1.18E-01 (ca)	3.58E-01 (ca)	7.32E-01 (ca)			
4/1/97				Lead Acetate	301-04-2	1.85E-01 (ca)	5.63E-01 (ca)	1.15E+00 (ca)			
4/1/97				Lead Phosphate	7446-27-7	1.54E-01 (ca)	4.68E-01 (ca)	9.56E-01 (ca)			
4/1/97				Lead Subacetate	1335-32-6	1.53E-01 (ca)	4.66E-01 (ca)	9.51E-01 (ca)			
	12/1/01			Maleic Anhydride	108-31-6	2.68E+01 (ch)	8.14E+01 (ch)	1.66E+02 (ch)			
	12/19/08	12/19/08		Manganese and Compounds	7439-96-5	1.52E+00 (8hr)	7.08E+00 (8hr)	2.14E+01 (ch)			
	12/19/08	12/19/08	12/19/08	Mercury and Compounds (Inorganic)	7439-97-6	2.97E-01 (ch)	9.03E-01 (ch)	1.84E+00 (ch)	6.85E-04	1.79E-03	2.67E-03
				Methyl Mercury*	593-74-8						
	12/19/08	12/19/08	12/19/08	Mercuric Chloride	7487-94-7	2.97E-01 (ch)	9.03E-01 (ch)	1.84E+00 (ch)	6.85E-04	1.79E-03	2.67E-03
	4/1/00		4/1/99	Methanol	67-56-1	1.53E+05 (ch)	4.65E+05 (ch)	9.50E+05 (ch)	3.20E+01	8.34E+01	1.25E+02
	2/1/00		4/1/99	Methyl Bromide (Bromomethane)	74-83-9	1.91E+02 (ch)	5.81E+02 (ch)	1.19E+03 (ch)	4.45E+00	1.16E+01	1.74E+01
11/1/99	2/1/00			Methyl Tertiary-Butyl Ether	1634-04-4	3.14E+01 (ca)	9.55E+01 (ca)	1.95E+02 (ca)			
	2/1/00		4/1/99	Methyl Chloroform (1,1,1-Trichloroethane)	71-55-6	3.83E+04 (ch)	1.16E+05 (ch)	2.37E+05 (ch)	7.77E+01	2.03E+02	3.03E+02
			4/1/99	Methyl Ethyl Ketone (2-Butanone)	78-93-3				1.48E+01	3.87E+01	5.79E+01
	12/1/01			Methyl Isocyanate	624-83-9	3.83E+01 (ch)	1.16E+02 (ch)	2.37E+02 (ch)			
4/1/99				4,4'-Methylene Bis (2-Chloroaniline) (MOCA)	101-14-4	3.77E-02 (ca)	1.15E-01 (ca)	2.34E-01 (ca)			
7/1/89	2/1/00		4/1/99	Methylene Chloride (Dichloromethane)	75-09-2	1.62E+01 (ca)	4.91E+01 (ca)	1.00E+02 (ca)	1.60E+01	4.17E+01	6.24E+01
4/1/99	12/1/01			4,4'-Methylene Dianiline (and Its Dichloride)	101-77-9	4.90E-03 (ca)	1.49E-02 (ca)	3.04E-02 (ca)			
	1/1/01			Methylene Diphenyl Isocyanate	101-68-8	2.68E+01 (ch)	8.14E+01 (ch)	1.66E+02 (ch)			
4/1/99				Michler's Ketone (4,4'-Bis(Dimethylamino)Benzophenone)	90-94-8	6.58E-02 (ca)	2.00E-01 (ca)	4.08E-01 (ca)			
4/99[1/92]				n-Nitrosodi-n-Butylamine	924-16-3	5.14E-03 (ca)	1.56E-02 (ca)	3.19E-02 (ca)			
4/99[1/91]				n-Nitrosodi-n-Propylamine	621-64-7	8.08E-03 (ca)	2.45E-02 (ca)	5.01E-02 (ca)			
4/99[1/91]				n-Nitrosodiethylamine	55-18-5	1.57E-03 (ca)	4.77E-03 (ca)	9.75E-03 (ca)			
4/99[1/91]				n-Nitrosodimethylamine	62-75-9	3.54E-03 (ca)	1.07E-02 (ca)	2.19E-02 (ca)			
4/1/99				n-Nitrosodiphenylamine	86-30-6	6.29E+00 (ca)	1.91E+01 (ca)	3.90E+01 (ca)			
4/99[7/90]				n-Nitroso-n-Methylethylamine	10595-95-6	2.57E-03 (ca)	7.81E-03 (ca)	1.59E-02 (ca)			
10/1/87				n-Nitroso-n-Methylurea	684-93-5	4.75E-04 (ca)	1.44E-03 (ca)	2.95E-03 (ca)			
10/1/87				n-Nitroso-n-Ethylurea	759-73-9	2.10E-03 (ca)	6.36E-03 (ca)	1.30E-02 (ca)			
4/99[7/92]				n-Nitrosomorpholine	59-89-2	8.45E-03 (ca)	2.56E-02 (ca)	5.24E-02 (ca)			
4/99[7/92]				n-Nitrosopiperidine	100-75-4	6.02E-03 (ca)	1.83E-02 (ca)	3.73E-02 (ca)			
4/99[7/90]				n-Nitrosopyrrolidine	930-55-2	2.69E-02 (ca)	8.18E-02 (ca)	1.67E-01 (ca)			

Table – 1.1 (continued)
Screening Emission Levels

Date Toxicity Criteria Last Updated				Pollutant		Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Cancer	**Chronic**	**8-hr Chronic**	**Acute**	**Toxic Air Contaminant**	**CAS No**	**Emissions at 25 m (lb/yr)**	**Emissions at 50 m (lb/yr)**	**Emissions at 100 m (lb/yr)**	**Emissions at 25 m, (lb/hr)**	**Emissions at 50 m, (lb/hr)**	**Emissions at 100 m, (lb/hr)**
8/1/91	3/23/12	3/23/12	3/23/12	Nickel and Compounds	7440-02-0	6.22E-02 (ca)	1.89E-01 (ca)	3.86E-01 (ca)	2.28E-04	5.96E-04	8.91E-04
8/1/91	3/23/12	3/23/12	3/23/12	Nickel Acetate	373-02-4	1.87E-01 (ca)	5.69E-01 (ca)	1.16E+00 (ca)	6.88E-04	1.79E-03	2.68E-03
8/1/91	3/23/12	3/23/12	3/23/12	Nickel Carbonate	3333-67-3	1.26E-01 (ca)	3.82E-01 (ca)	7.80E-01 (ca)	4.62E-04	1.20E-03	1.80E-03
8/1/91	3/23/12	3/23/12	3/23/12	Nickel Carbonyl	13463-39-3	1.81E-01 (ca)	5.49E-01 (ca)	1.12E+00 (ca)	6.64E-04	1.73E-03	2.59E-03
8/1/91	3/23/12	3/23/12	3/23/12	Nickel Hydroxide	12054-48-7	9.82E-02 (ca)	2.98E-01 (ca)	6.09E-01 (ca)	3.61E-04	9.41E-04	1.41E-03
8/1/91	3/23/12	3/23/12	3/23/12	Nickelocene	1271-28-9	1.26E-01 (ca)	3.82E-01 (ca)	7.81E-01 (ca)	4.63E-04	1.21E-03	1.81E-03
8/1/91	3/23/12	3/23/12	3/23/12	Nickel Oxide	1313-99-1	7.91E-02 (ca)	2.40E-01 (ca)	4.91E-01 (ca)	2.91E-04	7.58E-04	1.13E-03
8/1/91	3/23/12	3/23/12	3/23/12	Nickel Refinery Dust (Pyrometallurgical Process)	1146	6.22E-02 (ca)	1.89E-01 (ca)	3.86E-01 (ca)	2.28E-04	5.96E-04	8.91E-04
8/1/91	3/23/12	3/23/12	3/23/12	Nickel Subsulfide	12035-72-2	2.55E-01 (ca)	7.73E-01 (ca)	1.58E+00 (ca)	9.35E-04	2.44E-03	3.65E-03
			4/1/99	Nitric Acid	7697-37-2				9.82E-02	2.56E-01	3.83E-01
4/1/99				p-Nitrosodiphenylamine	156-10-5	2.57E+00 (ca)	7.81E+00 (ca)	1.59E+01 (ca)			
8/1/98	8/1/98			Particulate Emissions From Diesel-Fueled Engines	9901	5.14E-02 (ca)	1.56E-01 (ca)	3.19E-01 (ca)			
10/1/91	10/1/91		4/1/99	Perchloroethylene (Tetrachloroethylene)	127-18-4	2.69E+00 (ca)	8.18E+00 (ca)	1.67E+01 (ca)	2.28E+01	5.96E+01	8.91E+01
	4/1/00		4/1/99	Phenol	108-95-2	7.66E+03 (ch)	2.33E+04 (ch)	4.75E+04 (ch)	6.63E+00	1.73E+01	2.58E+01
			4/1/99	Phosgene	75-44-5				4.57E-03	1.19E-02	1.78E-02
	9/3/02			Phosphine	7803-51-2	3.06E+01 (ch)	9.30E+01 (ch)	1.90E+02 (ch)			
	2/1/00			Phosphoric Acid	7664-38-2	2.68E+02 (ch)	8.14E+02 (ch)	1.66E+03 (ch)			
	1/1/01			Phthalic Anhydride	85-44-9	7.66E+02 (ch)	2.33E+03 (ch)	4.75E+03 (ch)			
4/1/99	8/29/03			PCB (Polychlorinated Biphenyls)	1336-36-3	6.28E-05 (ch)	1.91E-04 (ch)	3.89E-04 (ch)			
8/29/03	8/29/03			3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	32598-13-3	1.58E-04 (ca)	4.79E-04 (ca)	9.79E-04 (ca)			
1/31/11	1/31/11			3,4,4',5-Tetrachlorobiphenyl (PCB 81)	70362-50-4	5.26E-05 (ca)	1.60E-04 (ca)	3.26E-04 (ca)			
1/31/11	1/31/11			2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	32598-14-4	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
1/31/11	1/31/11			2,3,4,4',5-Pentachlorobiphenyl (PCB 114)	74472-37-0	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
1/31/11	1/31/11			2,3',4,4',5-Pentachlorobiphenyl (PCB 118)	31508-00-6	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
1/31/11	1/31/11			2,3',4,4',5'-Pentachlorobiphenyl (PCB 123)	65510-44-3	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
8/29/03	8/29/03			3,3',4,4',5-Pentachlorobiphenyl (PCB 126)	57465-28-8	1.58E-07 (ca)	4.79E-07 (ca)	9.79E-07 (ca)			
1/31/11	1/31/11			2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	38380-08-4	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
1/31/11	1/31/11			2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	69782-90-7	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
1/31/11	1/31/11			2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	52663-72-6	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
1/31/11	1/31/11			3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	32774-16-6	5.26E-07 (ca)	1.60E-06 (ca)	3.26E-06 (ca)			
1/31/11	1/31/11			2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	39635-31-9	5.26E-04 (ca)	1.60E-03 (ca)	3.26E-03 (ca)			
8/1/86	2/1/00			Polychlorinated Dibenzo-p-Dioxins (PCDD)	1086	1.69E-08 (ca)	5.14E-08 (ca)	1.05E-07 (ca)			
8/1/86	2/1/00			2,3,7,8-Tetrachlorodibenzo-p-Dioxin	1746-01-6	1.69E-08 (ca)	5.14E-08 (ca)	1.05E-07 (ca)			
8/1/03	8/1/03			1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1.69E-08 (ca)	5.14E-08 (ca)	1.05E-07 (ca)			
4/1/99	2/1/00			1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1.69E-07 (ca)	5.14E-07 (ca)	1.05E-06 (ca)			

Table – 1.1 (continued)
Screening Emission Levels

Date Toxicity Criteria Last Updated				Pollutant		Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Cancer	**Chronic**	**8-hr Chronic**	**Acute**	**Toxic Air Contaminant**	**CAS No**	**Emissions at 25 m (lb/yr)**	**Emissions at 50 m (lb/yr)**	**Emissions at 100 m (lb/yr)**	**Emissions at 25 m, (lb/hr)**	**Emissions at 50 m, (lb/hr)**	**Emissions at 100 m, (lb/hr)**
4/1/99	2/1/00			1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1.69E-07 (ca)	5.14E-07 (ca)	1.05E-06 (ca)			
4/1/99	2/1/00			1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1.69E-07 (ca)	5.14E-07 (ca)	1.05E-06 (ca)			
4/1/99	2/1/00			1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1.69E-06 (ca)	5.14E-06 (ca)	1.05E-05 (ca)			
1/31/11	1/31/11			1,2,3,4,6,7,8,9-Octachlorodibenzo-p-Dioxin	3268-87-9	5.64E-05 (ca)	1.71E-04 (ca)	3.50E-04 (ca)			
8/1/86	2/1/00			Polychlorinated Dibenzofurans (PCDF)	1080	2.39E-08 (ca)	7.27E-08 (ca)	1.48E-07 (ca)			
4/1/99	2/1/00			2,3,7,8-Tetrachlorodibenzofuran	5120-73-19	2.39E-07 (ca)	7.27E-07 (ca)	1.48E-06 (ca)			
1/31/11	1/31/11			1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	7.98E-07 (ca)	2.42E-06 (ca)	4.95E-06 (ca)			
1/31/11	1/31/11			2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	7.98E-08 (ca)	2.42E-07 (ca)	4.95E-07 (ca)			
4/1/99	2/1/00			1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	2.39E-07 (ca)	7.27E-07 (ca)	1.48E-06 (ca)			
4/1/99	2/1/00			1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	2.39E-07 (ca)	7.27E-07 (ca)	1.48E-06 (ca)			
4/1/99	2/1/00			1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	2.39E-07 (ca)	7.27E-07 (ca)	1.48E-06 (ca)			
4/1/99	2/1/00			2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	2.39E-07 (ca)	7.27E-07 (ca)	1.48E-06 (ca)			
4/1/99	2/1/00			1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	2.39E-06 (ca)	7.27E-06 (ca)	1.48E-05 (ca)			
4/1/99	2/1/00			1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	2.39E-06 (ca)	7.27E-06 (ca)	1.48E-05 (ca)			
1/31/11	1/31/11			1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	7.98E-05 (ca)	2.42E-04 (ca)	4.95E-04 (ca)			
4/99[4/94]				Polycyclic Aromatic Hydrocarbon (PAH)	1151	6.28E-04 (ca)	1.91E-03 (ca)	3.89E-03 (ca)			
4/99[4/94]				Benz(A)Anthracene	56-55-3	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				Benzo(a)Pyrene	50-32-8	6.28E-04 (ca)	1.91E-03 (ca)	3.89E-03 (ca)			
4/99[4/94]				Benzo(b)Fluoranthene	205-99-2	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				Benzo(j)Fluoranthene	205-82-3	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				Benzo(k)Fluoranthene	207-08-9	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				Chrysene	218-01-9	6.28E-02 (ca)	1.91E-01 (ca)	3.89E-01 (ca)			
4/99[4/94]				Dibenz(a,h)Acridine	226-36-8	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				Dibenz(a,h)Anthracene	53-70-3	1.73E-03 (ca)	5.25E-03 (ca)	1.07E-02 (ca)			
4/99[4/94]				Dibenz(a,j)Acridine	224-42-0	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				Dibenzo(a,e)Pyrene	192-65-4	6.28E-04 (ca)	1.91E-03 (ca)	3.89E-03 (ca)			
4/99[4/94]				Dibenzo(a,h)Pyrene	189-64-0	6.28E-05 (ca)	1.91E-04 (ca)	3.89E-04 (ca)			
4/99[4/94]				Dibenzo(a,i)Pyrene	189-55-9	6.28E-05 (ca)	1.91E-04 (ca)	3.89E-04 (ca)			
4/99[4/94]				Dibenzo(a,l)Pyrene	191-30-0	6.28E-05 (ca)	1.91E-04 (ca)	3.89E-04 (ca)			
4/99[4/94]				7H-Dibenzo(c,g)Carbazole	194-59-2	6.28E-04 (ca)	1.91E-03 (ca)	3.89E-03 (ca)			
4/99[4/94]				7,12-Dimethylbenz(a)Anthracene	57-97-6	2.83E-05 (ca)	8.60E-05 (ca)	1.76E-04 (ca)			
4/99[4/94]				1,6-Dinitropyrene	42397-64-8	6.28E-05 (ca)	1.91E-04 (ca)	3.89E-04 (ca)			
4/99[4/94]				1,8-Dinitropyrene	42397-65-9	6.28E-04 (ca)	1.91E-03 (ca)	3.89E-03 (ca)			
4/99[4/94]				Indeno(1,2,3-c,d)Pyrene	193-39-5	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				3-Methylcholanthrene	56-49-5	3.22E-04 (ca)	9.78E-04 (ca)	2.00E-03 (ca)			
4/99[4/94]				5-Methylchrysene	3697-24-3	6.28E-04 (ca)	1.91E-03 (ca)	3.89E-03 (ca)			
8/4/2004	4/1/00			Naphthalene	91-20-3	4.72E-01 (ca)	1.43E+00 (ca)	2.92E+00 (ca)			
4/99[4/94]				5-Nitroacenaphthene	602-87-9	5.45E-02 (ca)	1.65E-01 (ca)	3.38E-01 (ca)			
4/99[4/94]				6-Nitrochrysene	7496-02-8	6.28E-05 (ca)	1.91E-04 (ca)	3.89E-04 (ca)			
4/99[4/94]				2-Nitrofluorene	607-57-8	6.28E-02 (ca)	1.91E-01 (ca)	3.89E-01 (ca)			
4/99[4/94]				1-Nitropyrene	5522-43-0	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/99[4/94]				4-Nitropyrene	57835-92-4	6.28E-03 (ca)	1.91E-02 (ca)	3.89E-02 (ca)			
4/1/99				1,3-Propane Sultone	1120-71-4	2.36E-02 (ca)	7.16E-02 (ca)	1.46E-01 (ca)			

Table – 1.1 (continued)
Screening Emission Levels

Date Toxicity Criteria Last Updated				Pollutant		Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Cancer	**Chronic**	**8-hr Chronic**	**Acute**	**Toxic Air Contaminant**	**CAS No**	**Emissions at 25 m (lb/yr)**	**Emissions at 50 m (lb/yr)**	**Emissions at 100 m (lb/yr)**	**Emissions at 25 m, (lb/hr)**	**Emissions at 50 m, (lb/hr)**	**Emissions at 100 m, (lb/hr)**
	4/1/00			Propylene (Propene)	115-07-1	1.15E+05 (ch)	3.49E+05 (ch)	7.12E+05 (ch)			
	2/1/00			Propylene Glycol Monomethyl Ether	107-98-2	2.68E+05 (ch)	8.14E+05 (ch)	1.66E+06 (ch)			
4/99[7/90]	2/1/00		4/1/99	Propylene Oxide	75-56-9	4.35E+00 (ca)	1.32E+01 (ca)	2.70E+01 (ca)	3.54E+00	9.23E+00	1.38E+01
	12/1/01			Selenium and Compounds	7782-49-2	3.92E+00 (ch)	1.19E+01 (ch)	2.43E+01 (ch)			
			4/1/99	Hydrogen Selenide	7783-07-5				5.71E-03	1.49E-02	2.23E-02
	12/1/01			Selenium Sulfide	7446-34-6	3.92E+00 (ch)	1.19E+01 (ch)	2.43E+01 (ch)			
			4/1/99	Sodium Hydroxide	1310-73-2				9.14E-03	2.38E-02	3.56E-02
	4/1/00		4/1/99	Styrene	100-42-5	3.45E+04 (ch)	1.05E+05 (ch)	2.14E+05 (ch)	2.40E+01	6.25E+01	9.36E+01
	12/1/01		4/1/99	Sulfuric Acid	7664-93-9	3.83E+01 (ch)	1.16E+02 (ch)	2.37E+02 (ch)	1.37E-01	3.57E-01	5.35E-01
	12/1/08		4/1/99	Sulfuric Acid (Sulfur Trioxide)	7446-71-9	3.83E+01 (ch)	1.16E+02 (ch)	2.37E+02 (ch)	1.37E-01	3.57E-01	5.35E-01
			4/1/99	Sulfuric Acid (Oleum)	8014-95-7				1.37E-01	3.57E-01	5.35E-01
4/1/99				1,1,2,2-Tetrachloroethane	79-34-5	2.83E-01 (ca)	8.59E-01 (ca)	1.75E+00 (ca)			
4/1/99				Thioacetamide	62-55-5	9.28E-03 (ca)	2.82E-02 (ca)	5.75E-02 (ca)			
	4/1/00		4/1/99	Toluene	108-88-3	1.15E+04 (ch)	3.49E+04 (ch)	7.12E+04 (ch)	4.23E+01	1.10E+02	1.65E+02
4/1/99	1/1/01			Toluene Diisocyantates	26471-62-5	1.45E+00 (ca)	4.41E+00 (ca)	9.00E+00 (ca)			
4/1/99	1/1/01			Toluene-2,4-Diisocyanate	584-84-9	1.45E+00 (ca)	4.41E+00 (ca)	9.00E+00 (ca)			
4/1/99	1/1/01			Toluene-2,6-Diisocyanate	91-08-7	1.45E+00 (ca)	4.41E+00 (ca)	9.00E+00 (ca)			
4/1/99				1,1,2-Trichloroethane (Vinyl Trichloride)	79-00-5	9.93E-01 (ca)	3.01E+00 (ca)	6.16E+00 (ca)			
10/1/90	4/1/00			Trichloroethylene	79-01-6	8.08E+00 (ca)	2.45E+01 (ca)	5.01E+01 (ca)			
	9/3/02		4/1/99	Triethylamine	121-44-8	7.66E+03 (ch)	2.33E+04 (ch)	4.75E+04 (ch)	3.20E+00	8.34E+00	1.25E+01
4/99[7/90]				Urethane (Ethyl Carbamate)	51-79-6	5.66E-02 (ca)	1.72E-01 (ca)	3.51E-01 (ca)			
			4/1/99	Vanadium (Fume or Dust)	7440-62-2				3.43E-02	8.93E-02	1.34E-01
			4/1/99	Vanadium Pentoxide	1314-62-1				3.43E-02	8.93E-02	1.34E-01
	12/1/01			Vinyl Acetate	108-05-4	7.66E+03 (ch)	2.33E+04 (ch)	4.75E+04 (ch)			
12/1/90			4/1/99	Vinyl Chloride (Chloroethylene)	75-01-4	2.10E-01 (ca)	6.36E-01 (ca)	1.30E+00 (ca)	2.06E+02	5.36E+02	8.02E+02
	1/1/01			Vinylidene Chloride (1,1-Dichloroethylene)	75-35-4	2.68E+03 (ch)	8.14E+03 (ch)	1.66E+04 (ch)			
	4/1/00		4/1/99	Xylenes (Mixed Isomers)	1330-20-7	2.68E+04 (ch)	8.14E+04 (ch)	1.66E+05 (ch)	2.51E+01	6.55E+01	9.80E+01
	4/1/00		4/1/99	m-Xylene	108-38-3	2.68E+04 (ch)	8.14E+04 (ch)	1.66E+05 (ch)	2.51E+01	6.55E+01	9.80E+01
	4/1/00		4/1/99	o-Xylene	95-47-6	2.68E+04 (ch)	8.14E+04 (ch)	1.66E+05 (ch)	2.51E+01	6.55E+01	9.80E+01
	4/1/00		4/1/99	p-Xylene	106-42-3	2.68E+04 (ch)	8.14E+04 (ch)	1.66E+05 (ch)	2.51E+01	6.55E+01	9.80E+01

* ARB removed methyl mercury from the July 3, 2014 Table 1 - Consolidated Table Of OEHHA/ARB Approved Risk Assessment Health Values because it has different chemical properties, potency, and toxicity compared to elemental mercury and mercury salts, and it is not emitted directly from any California facilities.

Note: Molecular weight adjustment factors have been applied to values in this table.

Table 2.1
Dispersion Factors (χ/Q)
for Point Source Equipment
Operating 12 Hours per Day or Less

Stack Height ≥ 14 ft to 24 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Stack Ht (ft)	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1,000
≥ 14 to 24*	Anaheim	48.05	9.89	5.04	2.90	0.58	0.20	0.06	0.02
≥ 14 to 24*	Azusa	44.21	9.44	4.80	2.75	0.54	0.19	0.06	0.01
≥ 14 to 24*	Banning	39.03	9.60	5.11	3.05	0.71	0.26	0.08	0.02
≥ 14 to 24*	Burbank	33.68	6.88	3.38	1.88	0.35	0.12	0.04	0.01
≥ 14 to 24*	Central LA	37.67	7.94	3.94	2.24	0.44	0.15	0.05	0.01
≥ 14 to 24*	Compton	38.70	8.01	4.03	2.30	0.46	0.15	0.05	0.01
≥ 14 to 24*	Costa Mesa	38.48	8.48	4.23	2.37	0.46	0.16	0.05	0.01
≥ 14 to 24*	Crestline	34.71	7.21	3.56	1.97	0.38	0.13	0.04	0.01
≥ 14 to 24*	Fontana	44.18	10.01	5.22	3.06	0.65	0.23	0.07	0.02
≥ 14 to 24*	Indio	25.10	6.10	3.06	1.73	0.35	0.13	0.04	0.01
≥ 14 to 24*	La Habra	42.02	8.77	4.27	2.37	0.44	0.15	0.05	0.01
≥ 14 to 24*	Lake Elsinore	30.88	7.19	3.62	2.04	0.40	0.14	0.04	0.01
≥ 14 to 24*	LAX	53.29	11.44	6.07	3.64	0.80	0.28	0.09	0.02
≥ 14 to 24*	Long Beach	30.11	6.35	3.18	1.79	0.35	0.12	0.04	0.01
≥ 14 to 24*	Lynwood	43.68	9.11	4.56	2.60	0.51	0.17	0.06	0.01
≥ 14 to 24*	Mission Viejo	32.37	6.95	3.48	1.95	0.37	0.13	0.04	0.01
≥ 14 to 24*	Palm Springs	25.82	5.62	2.73	1.56	0.31	0.11	0.04	0.01
≥ 14 to 24*	Perris	23.01	5.87	3.00	1.74	0.37	0.14	0.04	0.01
≥ 14 to 24*	Pico Rivera	40.67	8.32	4.25	2.43	0.48	0.17	0.06	0.01
≥ 14 to 24*	Pomona	25.80	6.96	3.69	2.12	0.42	0.15	0.05	0.01
≥ 14 to 24*	Redlands	42.39	9.39	4.55	2.49	0.46	0.16	0.05	0.01
≥ 14 to 24*	Reseda	28.17	6.18	2.84	1.49	0.25	0.09	0.03	0.01
≥ 14 to 24*	Riverside	40.92	8.91	4.59	2.66	0.54	0.19	0.06	0.02
≥ 14 to 24*	San Bernardino	35.55	7.97	3.97	2.24	0.45	0.16	0.05	0.01
≥ 14 to 24*	Santa Clarita	30.79	7.13	3.69	2.17	0.46	0.17	0.06	0.01
≥ 14 to 24*	Upland	45.39	9.91	5.09	2.94	0.60	0.21	0.07	0.02
≥ 14 to 24*	West LA	43.75	8.82	4.36	2.42	0.46	0.17	0.06	0.01

*Note: Facilities with stack heights less than 14 feet must perform Tier 3 or 4 dispersion modeling

Table 2.2
Dispersion Factors (χ/Q)
for Point Source Equipment
Operating 12 Hours per Day or Less

Stack Height > 24 ft to 49 ft

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Stack Ht (ft)	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1,000
> 24 to 49	Anaheim	29.30	6.78	3.76	2.26	0.50	0.19	0.06	0.02
> 24 to 49	Azusa	24.53	6.55	3.65	2.18	0.47	0.17	0.06	0.01
> 24 to 49	Banning	20.41	6.04	3.66	2.35	0.62	0.24	0.08	0.02
> 24 to 49	Burbank	19.69	4.80	2.58	1.51	0.31	0.12	0.04	0.01
> 24 to 49	Central LA	22.11	5.29	2.91	1.73	0.38	0.14	0.05	0.01
> 24 to 49	Compton	21.37	5.39	2.96	1.76	0.39	0.14	0.05	0.01
> 24 to 49	Costa Mesa	21.18	5.97	3.29	1.93	0.41	0.15	0.05	0.01
> 24 to 49	Crestline	20.22	5.11	2.77	1.61	0.34	0.13	0.04	0.01
> 24 to 49	Fontana	26.01	6.86	3.95	2.43	0.57	0.22	0.07	0.02
> 24 to 49	Indio	14.65	4.37	2.44	1.45	0.32	0.12	0.04	0.01
> 24 to 49	La Habra	24.55	6.18	3.28	1.90	0.39	0.15	0.05	0.01
> 24 to 49	Lake Elsinore	18.89	5.25	2.89	1.69	0.36	0.13	0.04	0.01
> 24 to 49	LAX	31.53	7.71	4.50	2.83	0.69	0.26	0.09	0.02
> 24 to 49	Long Beach	17.32	4.28	2.36	1.39	0.30	0.11	0.04	0.01
> 24 to 49	Lynwood	24.63	6.30	3.43	2.04	0.44	0.16	0.05	0.01
> 24 to 49	Mission Viejo	18.53	4.94	2.74	1.61	0.34	0.13	0.04	0.01
> 24 to 49	Palm Springs	14.67	4.05	2.13	1.25	0.28	0.10	0.03	0.01
> 24 to 49	Perris	13.47	4.17	2.36	1.43	0.34	0.13	0.04	0.01
> 24 to 49	Pico Rivera	23.87	5.76	3.23	1.94	0.43	0.17	0.05	0.01
> 24 to 49	Pomona	14.23	4.69	2.74	1.66	0.37	0.14	0.05	0.01
> 24 to 49	Redlands	23.47	6.69	3.56	2.04	0.42	0.16	0.05	0.01
> 24 to 49	Reseda	16.38	4.49	2.22	1.22	0.23	0.08	0.03	0.01
> 24 to 49	Riverside	22.58	6.17	3.49	2.11	0.47	0.18	0.06	0.01
> 24 to 49	San Bernardino	21.51	5.71	3.10	1.83	0.40	0.15	0.05	0.01
> 24 to 49	Santa Clarita	17.01	4.61	2.67	1.68	0.41	0.16	0.06	0.01
> 24 to 49	Upland	25.17	6.82	3.86	2.33	0.53	0.20	0.07	0.02
> 24 to 49	West LA	25.56	6.18	3.35	1.95	0.42	0.16	0.05	0.01

Table 2.3
Dispersion Factors (χ/Q)
for Point Source Equipment
Operating 12 Hours per Day or Less

Stack Height > 49 ft

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Stack Ht (ft)	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1,000
> 49	Anaheim	0.25	0.86	1.16	1.00	0.36	0.17	0.06	0.01
> 49	Azusa	0.39	0.95	1.09	0.93	0.34	0.16	0.05	0.01
> 49	Banning	0.05	0.16	0.51	0.73	0.43	0.21	0.08	0.02
> 49	Burbank	0.39	0.87	0.91	0.73	0.24	0.11	0.04	0.01
> 49	Central LA	0.18	0.72	0.93	0.79	0.28	0.13	0.05	0.01
> 49	Compton	0.44	0.93	0.99	0.79	0.27	0.12	0.05	0.01
> 49	Costa Mesa	0.59	0.98	1.08	0.90	0.31	0.14	0.05	0.01
> 49	Crestline	0.46	0.94	1.00	0.79	0.26	0.12	0.04	0.01
> 49	Fontana	0.21	0.63	0.98	0.99	0.42	0.20	0.07	0.02
> 49	Indio	0.39	0.77	0.84	0.72	0.26	0.12	0.04	0.01
> 49	La Habra	0.80	1.18	1.14	0.89	0.30	0.13	0.05	0.01
> 49	Lake Elsinore	0.38	0.87	0.91	0.76	0.27	0.12	0.04	0.01
> 49	LAX	0.10	0.55	1.02	1.09	0.48	0.23	0.08	0.02
> 49	Long Beach	0.27	0.83	0.86	0.67	0.22	0.10	0.03	0.01
> 49	Lynwood	1.12	1.27	1.18	0.93	0.32	0.15	0.05	0.01
> 49	Mission Viejo	0.23	0.76	0.91	0.78	0.27	0.12	0.04	0.01
> 49	Palm Springs	0.91	1.10	0.94	0.70	0.22	0.10	0.03	0.01
> 49	Perris	0.65	0.83	0.80	0.69	0.27	0.12	0.04	0.01
> 49	Pico Rivera	0.18	0.69	0.93	0.86	0.33	0.15	0.05	0.01
> 49	Pomona	0.66	0.93	0.94	0.78	0.28	0.13	0.05	0.01
> 49	Redlands	0.90	1.29	1.23	0.97	0.32	0.15	0.05	0.01
> 49	Reseda	1.25	1.33	0.96	0.65	0.18	0.08	0.03	0.01
> 49	Riverside	0.46	0.88	1.08	0.94	0.35	0.16	0.06	0.01
> 49	San Bernardino	0.97	1.12	1.08	0.88	0.31	0.14	0.05	0.01
> 49	Santa Clarita	0.38	0.45	0.64	0.69	0.31	0.15	0.06	0.01
> 49	Upland	0.32	0.87	1.16	1.04	0.39	0.18	0.06	0.02
> 49	West LA	0.36	0.91	1.09	0.92	0.33	0.15	0.05	0.01

Table 3.1
Dispersion Factors (χ/Q)
for Point Source Equipment
Operating More Than 12 Hours per Day

Stack Height ≥ 14 ft to 24 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Stack Ht (ft)	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1,000
≥ 14 to 24*	Anaheim	49.22	15.26	9.36	6.37	1.81	0.60	0.18	0.05
≥ 14 to 24*	Azusa	50.39	15.35	9.61	6.69	2.01	0.63	0.17	0.05
≥ 14 to 24*	Banning	51.06	15.91	10.06	7.03	2.40	0.96	0.34	0.11
≥ 14 to 24*	Burbank	49.94	15.24	9.21	6.26	1.80	0.56	0.15	0.05
≥ 14 to 24*	Central LA	37.59	12.14	7.40	5.09	1.47	0.45	0.14	0.04
≥ 14 to 24*	Compton	50.39	15.66	10.01	7.03	2.16	0.67	0.18	0.05
≥ 14 to 24*	Costa Mesa	44.29	14.60	9.35	6.42	1.88	0.65	0.21	0.06
≥ 14 to 24*	Crestline	42.84	13.75	8.82	6.17	1.89	0.64	0.19	0.06
≥ 14 to 24*	Fontana	51.74	16.42	10.24	7.11	2.24	0.78	0.24	0.07
≥ 14 to 24*	Indio	48.20	15.85	10.13	7.16	2.34	0.84	0.26	0.08
≥ 14 to 24*	La Habra	47.02	14.44	8.56	5.67	1.67	0.60	0.20	0.06
≥ 14 to 24*	Lake Elsinore	38.60	14.03	8.87	6.21	1.95	0.67	0.20	0.06
≥ 14 to 24*	LAX	52.24	15.71	9.50	6.44	1.93	0.69	0.22	0.06
≥ 14 to 24*	Long Beach	45.54	15.42	9.91	7.07	2.21	0.66	0.16	0.05
≥ 14 to 24*	Lynwood	50.44	15.59	9.82	6.76	2.01	0.67	0.20	0.06
≥ 14 to 24*	Mission Viejo	39.31	12.37	7.92	5.51	1.68	0.58	0.19	0.06
≥ 14 to 24*	Palm Springs	51.14	16.67	10.62	7.44	2.11	0.62	0.16	0.05
≥ 14 to 24*	Perris	41.64	14.37	8.79	6.02	1.88	0.70	0.23	0.07
≥ 14 to 24*	Pico Rivera	45.69	13.52	8.26	5.58	1.58	0.54	0.17	0.05
≥ 14 to 24*	Pomona	50.92	15.96	9.89	6.91	2.09	0.67	0.19	0.06
≥ 14 to 24*	Redlands	51.82	16.13	11.19	8.36	2.76	0.82	0.22	0.07
≥ 14 to 24*	Reseda	41.68	13.81	8.56	5.87	1.74	0.60	0.18	0.06
≥ 14 to 24*	Riverside	47.16	14.61	9.12	6.28	1.90	0.66	0.21	0.06
≥ 14 to 24*	San Bernardino	51.83	17.20	10.51	7.25	2.18	0.73	0.22	0.07
≥ 14 to 24*	Santa Clarita	39.36	12.98	8.53	6.19	1.96	0.60	0.19	0.06
≥ 14 to 24*	Upland	50.91	15.87	10.09	7.36	2.16	0.72	0.21	0.06
≥ 14 to 24*	West LA	46.84	16.73	11.54	8.42	2.56	0.74	0.20	0.06

*Note: Facilities with stack heights less than 14 feet must perform Tier 3 or 4 dispersion modeling

Table 3.2
Dispersion Factors (χ/Q)
for Point Source Equipment
Operating More Than 12 Hours per Day

Stack Height > 24 ft to 49 ft

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Stack Ht (ft)	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1,000
> 24 to 49	Anaheim	28.70	9.01	5.91	4.16	1.35	0.54	0.19	0.06
> 24 to 49	Azusa	25.56	8.44	5.69	4.12	1.42	0.54	0.18	0.06
> 24 to 49	Banning	26.52	8.57	5.84	4.31	1.77	0.87	0.36	0.12
> 24 to 49	Burbank	28.70	8.95	5.72	4.02	1.31	0.49	0.16	0.05
> 24 to 49	Central LA	19.13	6.70	4.45	3.19	1.05	0.38	0.14	0.04
> 24 to 49	Compton	27.06	9.24	6.09	4.39	1.50	0.56	0.18	0.05
> 24 to 49	Costa Mesa	26.66	9.74	5.76	3.85	1.25	0.56	0.22	0.07
> 24 to 49	Crestline	27.42	9.34	5.51	3.66	1.18	0.53	0.21	0.07
> 24 to 49	Fontana	28.29	9.20	6.12	4.42	1.64	0.72	0.27	0.09
> 24 to 49	Indio	29.02	9.13	6.03	4.38	1.71	0.79	0.31	0.10
> 24 to 49	La Habra	29.03	9.99	5.81	3.84	1.21	0.54	0.21	0.06
> 24 to 49	Lake Elsinore	20.29	8.15	5.38	3.84	1.38	0.58	0.22	0.07
> 24 to 49	LAX	29.04	9.62	6.19	4.34	1.48	0.63	0.23	0.07
> 24 to 49	Long Beach	20.86	8.21	5.69	4.23	1.52	0.54	0.17	0.05
> 24 to 49	Lynwood	31.63	10.52	6.45	4.44	1.47	0.59	0.21	0.06
> 24 to 49	Mission Viejo	20.90	7.41	5.05	3.61	1.25	0.53	0.20	0.06
> 24 to 49	Palm Springs	30.97	9.31	5.92	4.18	1.40	0.56	0.20	0.06
> 24 to 49	Perris	23.64	9.10	5.65	3.90	1.37	0.63	0.25	0.08
> 24 to 49	Pico Rivera	25.45	7.92	5.23	3.70	1.23	0.51	0.19	0.06
> 24 to 49	Pomona	30.91	10.17	6.23	4.37	1.52	0.59	0.20	0.06
> 24 to 49	Redlands	29.00	10.84	6.36	4.25	1.45	0.62	0.24	0.08
> 24 to 49	Reseda	24.01	8.94	5.25	3.53	1.14	0.48	0.18	0.06
> 24 to 49	Riverside	26.44	9.02	5.80	4.09	1.42	0.61	0.23	0.07
> 24 to 49	San Bernardino	31.81	10.73	6.55	4.53	1.57	0.68	0.26	0.08
> 24 to 49	Santa Clarita	22.26	7.20	4.73	3.39	1.22	0.50	0.20	0.06
> 24 to 49	Upland	26.29	9.28	6.06	4.35	1.58	0.67	0.25	0.08
> 24 to 49	West LA	28.33	9.71	5.68	3.70	1.18	0.51	0.20	0.06

Table 3.3
Dispersion Factors (χ/Q)
for Point Source Equipment
Operating More Than 12 Hours per Day

Stack Height > 49 ft

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Stack Ht (ft)	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1,000
> 49	Anaheim	0.13	0.54	0.86	0.98	0.71	0.43	0.21	0.07
> 49	Azusa	0.20	0.59	0.81	0.89	0.66	0.42	0.21	0.08
> 49	Banning	0.02	0.11	0.30	0.46	0.60	0.50	0.29	0.12
> 49	Burbank	0.18	0.53	0.72	0.86	0.65	0.42	0.21	0.07
> 49	Central LA	0.09	0.33	0.51	0.59	0.45	0.30	0.16	0.06
> 49	Compton	0.22	1.05	1.34	1.33	0.75	0.45	0.22	0.07
> 49	Costa Mesa	0.33	1.68	1.93	1.69	0.83	0.47	0.22	0.07
> 49	Crestline	0.31	1.44	1.68	1.43	0.75	0.44	0.21	0.07
> 49	Fontana	0.12	0.44	0.68	0.83	0.75	0.52	0.27	0.10
> 49	Indio	0.17	0.57	0.69	0.74	0.71	0.54	0.30	0.11
> 49	La Habra	0.44	1.71	1.94	1.66	0.80	0.45	0.21	0.07
> 49	Lake Elsinore	0.21	0.79	0.95	1.02	0.73	0.46	0.23	0.08
> 49	LAX	0.07	0.66	0.91	1.01	0.72	0.46	0.23	0.08
> 49	Long Beach	0.13	0.52	0.79	0.92	0.66	0.41	0.21	0.07
> 49	Lynwood	0.53	1.75	1.91	1.69	0.87	0.51	0.24	0.08
> 49	Mission Viejo	0.12	0.56	0.79	0.91	0.65	0.40	0.20	0.07
> 49	Palm Springs	0.41	0.93	1.15	1.16	0.80	0.50	0.25	0.09
> 49	Perris	0.36	1.29	1.32	1.24	0.76	0.48	0.24	0.08
> 49	Pico Rivera	0.09	0.46	0.66	0.77	0.61	0.39	0.20	0.07
> 49	Pomona	0.54	1.90	2.02	1.74	0.90	0.53	0.25	0.09
> 49	Redlands	0.51	1.60	1.88	1.80	0.97	0.58	0.28	0.10
> 49	Reseda	0.62	1.92	1.93	1.60	0.72	0.40	0.18	0.06
> 49	Riverside	0.27	1.02	1.25	1.25	0.79	0.48	0.23	0.08
> 49	San Bernardino	0.52	1.38	1.49	1.39	0.88	0.56	0.28	0.10
> 49	Santa Clarita	0.23	0.73	0.84	0.87	0.63	0.40	0.20	0.07
> 49	Upland	0.19	0.64	0.92	1.05	0.87	0.57	0.30	0.11
> 49	West LA	0.22	1.50	1.75	1.56	0.75	0.42	0.19	0.06

Table 4.1
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating 12 Hours per Day or Less

Building Area ≤ 3,000 ft^2, Height ≤ 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
≤ 3,000	≤ 20	Anaheim	8.62	3.03	1.74	1.13	0.36	0.17	0.06	0.02
≤ 3,000	≤ 20	Azusa	10.08	3.50	1.85	1.15	0.34	0.16	0.06	0.01
≤ 3,000	≤ 20	Banning	15.42	5.59	2.88	1.76	0.50	0.23	0.08	0.02
≤ 3,000	≤ 20	Burbank	8.31	2.55	1.34	0.83	0.24	0.11	0.04	0.01
≤ 3,000	≤ 20	Central LA	7.61	2.36	1.33	0.86	0.27	0.13	0.05	0.01
≤ 3,000	≤ 20	Compton	8.11	2.45	1.31	0.83	0.26	0.13	0.05	0.01
≤ 3,000	≤ 20	Costa Mesa	10.20	3.43	1.78	1.09	0.31	0.14	0.05	0.01
≤ 3,000	≤ 20	Crestline	9.45	2.96	1.49	0.90	0.25	0.12	0.04	0.01
≤ 3,000	≤ 20	Fontana	13.28	4.84	2.53	1.56	0.44	0.20	0.07	0.02
≤ 3,000	≤ 20	Indio	10.78	3.48	1.69	0.99	0.26	0.11	0.04	0.01
≤ 3,000	≤ 20	La Habra	9.50	2.92	1.53	0.96	0.28	0.13	0.05	0.01
≤ 3,000	≤ 20	Lake Elsinore	11.33	3.60	1.75	1.03	0.27	0.12	0.04	0.01
≤ 3,000	≤ 20	LAX	13.61	5.21	2.81	1.76	0.52	0.24	0.09	0.02
≤ 3,000	≤ 20	Long Beach	8.37	2.57	1.28	0.77	0.22	0.10	0.04	0.01
≤ 3,000	≤ 20	Lynwood	9.67	3.13	1.64	1.03	0.31	0.15	0.06	0.01
≤ 3,000	≤ 20	Mission Viejo	10.69	3.50	1.74	1.03	0.27	0.12	0.04	0.01
≤ 3,000	≤ 20	Palm Springs	9.11	2.73	1.32	0.78	0.21	0.09	0.03	0.01
≤ 3,000	≤ 20	Perris	12.21	3.88	1.86	1.09	0.28	0.12	0.04	0.01
≤ 3,000	≤ 20	Pico Rivera	10.18	3.60	1.90	1.18	0.34	0.15	0.05	0.01
≤ 3,000	≤ 20	Pomona	9.36	2.91	1.53	0.95	0.28	0.13	0.05	0.01
≤ 3,000	≤ 20	Redlands	11.12	3.60	1.82	1.11	0.31	0.14	0.05	0.01
≤ 3,000	≤ 20	Reseda	9.54	2.70	1.23	0.70	0.17	0.08	0.03	0.01
≤ 3,000	≤ 20	Riverside	10.76	3.77	1.97	1.22	0.35	0.16	0.06	0.02
≤ 3,000	≤ 20	San Bernardino	10.84	3.60	1.83	1.11	0.31	0.14	0.05	0.01
≤ 3,000	≤ 20	Santa Clarita	10.97	3.64	1.85	1.13	0.33	0.16	0.06	0.01
≤ 3,000	≤ 20	Upland	10.95	3.99	2.14	1.34	0.39	0.18	0.07	0.02
≤ 3,000	≤ 20	West LA	9.02	3.14	1.70	1.08	0.32	0.15	0.05	0.01

*Note: Facilities with building dimensions outside the ranges in Tables 4 must perform Tier 3 or 4 dispersion modeling

Table 4.2
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating 12 Hours per Day or Less

Building Area > 3,000 to 10,000 ft^2, Height ≤ 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 3,000 to 10,000	≤ 20	Anaheim	6.49	2.68	1.59	1.05	0.34	0.17	0.06	0.02
> 3,000 to 10,000	≤ 20	Azusa	7.74	3.04	1.67	1.07	0.33	0.15	0.06	0.01
> 3,000 to 10,000	≤ 20	Banning	11.98	4.81	2.59	1.62	0.48	0.22	0.08	0.02
> 3,000 to 10,000	≤ 20	Burbank	6.24	2.22	1.22	0.77	0.23	0.10	0.04	0.01
> 3,000 to 10,000	≤ 20	Central LA	5.73	2.07	1.21	0.80	0.26	0.12	0.05	0.01
> 3,000 to 10,000	≤ 20	Compton	6.08	2.13	1.19	0.77	0.25	0.12	0.05	0.01
> 3,000 to 10,000	≤ 20	Costa Mesa	7.78	2.98	1.61	1.01	0.29	0.13	0.05	0.01
> 3,000 to 10,000	≤ 20	Crestline	7.10	2.55	1.34	0.83	0.24	0.11	0.04	0.01
> 3,000 to 10,000	≤ 20	Fontana	10.36	4.19	2.28	1.44	0.42	0.20	0.07	0.02
> 3,000 to 10,000	≤ 20	Indio	8.24	2.97	1.51	0.91	0.25	0.11	0.04	0.01
> 3,000 to 10,000	≤ 20	La Habra	7.09	2.53	1.38	0.89	0.27	0.13	0.05	0.01
> 3,000 to 10,000	≤ 20	Lake Elsinore	8.63	3.08	1.57	0.95	0.26	0.12	0.04	0.01
> 3,000 to 10,000	≤ 20	LAX	10.70	4.54	2.54	1.63	0.50	0.24	0.09	0.02
> 3,000 to 10,000	≤ 20	Long Beach	6.29	2.21	1.15	0.71	0.21	0.10	0.04	0.01
> 3,000 to 10,000	≤ 20	Lynwood	7.24	2.72	1.49	0.95	0.30	0.14	0.05	0.01
> 3,000 to 10,000	≤ 20	Mission Viejo	8.19	3.01	1.56	0.95	0.26	0.12	0.04	0.01
> 3,000 to 10,000	≤ 20	Palm Springs	6.78	2.33	1.19	0.71	0.20	0.09	0.03	0.01
> 3,000 to 10,000	≤ 20	Perris	9.30	3.30	1.66	0.99	0.27	0.12	0.04	0.01
> 3,000 to 10,000	≤ 20	Pico Rivera	7.90	3.14	1.72	1.09	0.32	0.15	0.05	0.01
> 3,000 to 10,000	≤ 20	Pomona	6.98	2.53	1.38	0.88	0.27	0.13	0.05	0.01
> 3,000 to 10,000	≤ 20	Redlands	8.44	3.10	1.64	1.02	0.30	0.14	0.05	0.01
> 3,000 to 10,000	≤ 20	Reseda	7.08	2.28	1.09	0.64	0.17	0.07	0.03	0.01
> 3,000 to 10,000	≤ 20	Riverside	8.32	3.27	1.78	1.13	0.34	0.16	0.06	0.02
> 3,000 to 10,000	≤ 20	San Bernardino	8.28	3.11	1.65	1.02	0.29	0.14	0.05	0.01
> 3,000 to 10,000	≤ 20	Santa Clarita	8.36	3.12	1.66	1.04	0.32	0.15	0.06	0.01
> 3,000 to 10,000	≤ 20	Upland	8.51	3.48	1.94	1.24	0.38	0.18	0.06	0.02
> 3,000 to 10,000	≤ 20	West LA	6.86	2.75	1.55	1.00	0.31	0.15	0.05	0.01

*Note: Facilities with building dimensions outside the ranges in Tables 4 must perform Tier 3 or 4 dispersion modeling

Table 4.3
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating 12 Hours per Day or Less

Building Area > 3,000 to 10,000 ft^2, Height > 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 3,000 to 10,000	> 20	Anaheim	6.89	2.99	1.69	1.09	0.34	0.16	0.06	0.02
> 3,000 to 10,000	> 20	Azusa	7.69	3.16	1.72	1.08	0.32	0.15	0.05	0.01
> 3,000 to 10,000	> 20	Banning	9.27	4.39	2.48	1.57	0.47	0.22	0.08	0.02
> 3,000 to 10,000	> 20	Burbank	6.04	2.38	1.28	0.80	0.23	0.10	0.04	0.01
> 3,000 to 10,000	> 20	Central LA	5.84	2.42	1.34	0.86	0.26	0.12	0.05	0.01
> 3,000 to 10,000	> 20	Compton	5.97	2.35	1.28	0.81	0.25	0.12	0.05	0.01
> 3,000 to 10,000	> 20	Costa Mesa	7.58	3.06	1.65	1.02	0.29	0.13	0.05	0.01
> 3,000 to 10,000	> 20	Crestline	6.87	2.65	1.39	0.86	0.24	0.11	0.04	0.01
> 3,000 to 10,000	> 20	Fontana	9.46	4.15	2.28	1.43	0.42	0.19	0.07	0.02
> 3,000 to 10,000	> 20	Indio	7.32	2.89	1.50	0.91	0.24	0.11	0.04	0.01
> 3,000 to 10,000	> 20	La Habra	6.96	2.70	1.46	0.92	0.27	0.13	0.05	0.01
> 3,000 to 10,000	> 20	Lake Elsinore	7.74	3.01	1.56	0.95	0.26	0.12	0.04	0.01
> 3,000 to 10,000	> 20	LAX	9.87	4.50	2.53	1.61	0.49	0.23	0.08	0.02
> 3,000 to 10,000	> 20	Long Beach	6.00	2.28	1.18	0.72	0.21	0.09	0.03	0.01
> 3,000 to 10,000	> 20	Lynwood	7.36	2.89	1.56	0.98	0.29	0.14	0.05	0.01
> 3,000 to 10,000	> 20	Mission Viejo	7.52	2.99	1.57	0.95	0.26	0.12	0.04	0.01
> 3,000 to 10,000	> 20	Palm Springs	6.67	2.42	1.22	0.73	0.20	0.09	0.03	0.01
> 3,000 to 10,000	> 20	Perris	8.00	3.15	1.63	0.98	0.26	0.12	0.04	0.01
> 3,000 to 10,000	> 20	Pico Rivera	7.69	3.24	1.77	1.11	0.32	0.15	0.05	0.01
> 3,000 to 10,000	> 20	Pomona	6.97	2.72	1.46	0.91	0.27	0.12	0.04	0.01
> 3,000 to 10,000	> 20	Redlands	8.24	3.19	1.68	1.04	0.30	0.14	0.05	0.01
> 3,000 to 10,000	> 20	Reseda	6.75	2.30	1.11	0.65	0.17	0.07	0.03	0.01
> 3,000 to 10,000	> 20	Riverside	8.07	3.33	1.81	1.13	0.33	0.15	0.06	0.01
> 3,000 to 10,000	> 20	San Bernardino	8.03	3.17	1.68	1.03	0.29	0.13	0.05	0.01
> 3,000 to 10,000	> 20	Santa Clarita	7.25	3.08	1.67	1.05	0.31	0.15	0.06	0.01
> 3,000 to 10,000	> 20	Upland	8.55	3.63	1.99	1.26	0.37	0.17	0.06	0.02
> 3,000 to 10,000	> 20	West LA	7.03	2.93	1.62	1.03	0.31	0.14	0.05	0.01

*Note: Facilities with building dimensions outside the ranges in Tables 4 must perform Tier 3 or 4 dispersion modeling

Table 4.4
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating 12 Hours per Day or Less

Building Area > 10,000 to 30,000 ft2, Height ≤ 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 10,000 to 30,000	≤ 20	Anaheim	4.46	2.23	1.38	0.94	0.32	0.16	0.06	0.02
> 10,000 to 30,000	≤ 20	Azusa	5.38	2.45	1.43	0.94	0.30	0.15	0.05	0.01
> 10,000 to 30,000	≤ 20	Banning	8.23	3.80	2.18	1.42	0.44	0.21	0.08	0.02
> 10,000 to 30,000	≤ 20	Burbank	4.13	1.80	1.04	0.68	0.21	0.10	0.04	0.01
> 10,000 to 30,000	≤ 20	Central LA	3.81	1.72	1.05	0.71	0.24	0.12	0.05	0.01
> 10,000 to 30,000	≤ 20	Compton	4.02	1.73	1.03	0.69	0.23	0.12	0.05	0.01
> 10,000 to 30,000	≤ 20	Costa Mesa	5.37	2.39	1.37	0.89	0.27	0.13	0.05	0.01
> 10,000 to 30,000	≤ 20	Crestline	4.77	2.03	1.14	0.73	0.23	0.11	0.04	0.01
> 10,000 to 30,000	≤ 20	Fontana	7.27	3.36	1.94	1.26	0.39	0.19	0.07	0.02
> 10,000 to 30,000	≤ 20	Indio	5.58	2.33	1.27	0.79	0.23	0.11	0.04	0.01
> 10,000 to 30,000	≤ 20	La Habra	4.70	2.03	1.19	0.78	0.25	0.12	0.04	0.01
> 10,000 to 30,000	≤ 20	Lake Elsinore	5.84	2.42	1.31	0.82	0.24	0.11	0.04	0.01
> 10,000 to 30,000	≤ 20	LAX	7.59	3.66	2.17	1.43	0.47	0.23	0.08	0.02
> 10,000 to 30,000	≤ 20	Long Beach	4.17	1.76	0.97	0.62	0.19	0.09	0.03	0.01
> 10,000 to 30,000	≤ 20	Lynwood	4.91	2.19	1.27	0.84	0.28	0.14	0.05	0.01
> 10,000 to 30,000	≤ 20	Mission Viejo	5.61	2.38	1.31	0.83	0.24	0.11	0.04	0.01
> 10,000 to 30,000	≤ 20	Palm Springs	4.48	1.83	1.00	0.62	0.18	0.09	0.03	0.01
> 10,000 to 30,000	≤ 20	Perris	6.27	2.58	1.39	0.86	0.25	0.11	0.04	0.01
> 10,000 to 30,000	≤ 20	Pico Rivera	5.54	2.53	1.47	0.96	0.30	0.14	0.05	0.01
> 10,000 to 30,000	≤ 20	Pomona	4.63	2.04	1.18	0.78	0.25	0.12	0.04	0.01
> 10,000 to 30,000	≤ 20	Redlands	5.73	2.47	1.39	0.90	0.28	0.13	0.05	0.01
> 10,000 to 30,000	≤ 20	Reseda	4.61	1.75	0.91	0.55	0.15	0.07	0.03	0.01
> 10,000 to 30,000	≤ 20	Riverside	5.80	2.63	1.52	0.99	0.32	0.15	0.06	0.02
> 10,000 to 30,000	≤ 20	San Bernardino	5.68	2.48	1.40	0.90	0.27	0.13	0.05	0.01
> 10,000 to 30,000	≤ 20	Santa Clarita	5.65	2.46	1.41	0.92	0.30	0.14	0.06	0.01
> 10,000 to 30,000	≤ 20	Upland	6.01	2.82	1.66	1.09	0.35	0.17	0.06	0.02
> 10,000 to 30,000	≤ 20	West LA	4.78	2.24	1.33	0.89	0.29	0.14	0.05	0.01

*Note: Facilities with building dimensions outside the ranges in Tables 4 must perform Tier 3 or 4 dispersion modeling

Table 4.5
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating 12 Hours per Day or Less

Building Area > 10,000 to 30,000ft2, Height > 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 10,000 to 30,000	>20	Anaheim	5.02	2.44	1.45	0.96	0.32	0.15	0.06	0.01
> 10,000 to 30,000	>20	Azusa	5.50	2.54	1.47	0.95	0.30	0.14	0.05	0.01
> 10,000 to 30,000	>20	Banning	6.85	3.54	2.10	1.37	0.43	0.21	0.08	0.02
> 10,000 to 30,000	>20	Burbank	4.28	1.91	1.09	0.70	0.21	0.10	0.04	0.01
> 10,000 to 30,000	>20	Central LA	4.19	1.96	1.15	0.76	0.24	0.12	0.04	0.01
> 10,000 to 30,000	>20	Compton	4.21	1.89	1.09	0.71	0.23	0.11	0.04	0.01
> 10,000 to 30,000	>20	Costa Mesa	5.42	2.46	1.40	0.90	0.27	0.12	0.05	0.01
> 10,000 to 30,000	>20	Crestline	4.83	2.11	1.18	0.75	0.23	0.11	0.04	0.01
> 10,000 to 30,000	>20	Fontana	6.91	3.34	1.93	1.25	0.39	0.18	0.07	0.02
> 10,000 to 30,000	>20	Indio	5.18	2.28	1.26	0.79	0.23	0.10	0.04	0.01
> 10,000 to 30,000	>20	La Habra	4.87	2.17	1.24	0.81	0.25	0.12	0.04	0.01
> 10,000 to 30,000	>20	Lake Elsinore	5.46	2.38	1.31	0.82	0.24	0.11	0.04	0.01
> 10,000 to 30,000	>20	LAX	7.27	3.64	2.15	1.41	0.45	0.22	0.08	0.02
> 10,000 to 30,000	>20	Long Beach	4.19	1.81	1.00	0.63	0.19	0.09	0.03	0.01
> 10,000 to 30,000	>20	Lynwood	5.16	2.32	1.33	0.86	0.27	0.13	0.05	0.01
> 10,000 to 30,000	>20	Mission Viejo	5.37	2.38	1.32	0.83	0.24	0.11	0.04	0.01
> 10,000 to 30,000	>20	Palm Springs	4.57	1.90	1.02	0.63	0.18	0.09	0.03	0.01
> 10,000 to 30,000	>20	Perris	5.65	2.49	1.37	0.85	0.25	0.11	0.04	0.01
> 10,000 to 30,000	>20	Pico Rivera	5.59	2.62	1.51	0.97	0.30	0.14	0.05	0.01
> 10,000 to 30,000	>20	Pomona	4.89	2.18	1.24	0.80	0.25	0.12	0.04	0.01
> 10,000 to 30,000	>20	Redlands	5.77	2.54	1.42	0.91	0.28	0.13	0.05	0.01
> 10,000 to 30,000	>20	Reseda	4.53	1.78	0.92	0.56	0.15	0.07	0.03	0.01
> 10,000 to 30,000	>20	Riverside	5.78	2.67	1.53	0.99	0.31	0.15	0.05	0.01
> 10,000 to 30,000	>20	San Bernardino	5.66	2.52	1.42	0.90	0.27	0.13	0.05	0.01
> 10,000 to 30,000	>20	Santa Clarita	5.19	2.45	1.41	0.92	0.29	0.14	0.05	0.01
> 10,000 to 30,000	>20	Upland	6.19	2.92	1.70	1.10	0.34	0.16	0.06	0.02
> 10,000 to 30,000	>20	West LA	5.06	2.37	1.38	0.91	0.29	0.14	0.05	0.01

*Note: Facilities with building dimensions outside the ranges in Tables 4 must perform Tier 3 or 4 dispersion modeling

Table 4.6
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating 12 Hours per Day or Less

Building Area > 30,000 ft^2, Height > 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 30,000	>20	Anaheim	3.21	1.78	1.14	0.79	0.28	0.14	0.05	0.01
> 30,000	>20	Azusa	3.42	1.83	1.13	0.77	0.26	0.13	0.05	0.01
> 30,000	>20	Banning	4.36	2.52	1.61	1.11	0.38	0.19	0.07	0.02
> 30,000	>20	Burbank	2.66	1.38	0.85	0.57	0.19	0.09	0.03	0.01
> 30,000	>20	Central LA	2.64	1.43	0.90	0.62	0.22	0.11	0.04	0.01
> 30,000	>20	Compton	2.60	1.37	0.85	0.58	0.21	0.10	0.04	0.01
> 30,000	>20	Costa Mesa	3.38	1.77	1.08	0.73	0.24	0.11	0.04	0.01
> 30,000	>20	Crestline	2.95	1.51	0.91	0.61	0.20	0.10	0.04	0.01
> 30,000	>20	Fontana	4.35	2.38	1.49	1.01	0.34	0.17	0.06	0.02
> 30,000	>20	Indio	3.14	1.60	0.95	0.63	0.20	0.09	0.03	0.01
> 30,000	>20	La Habra	2.98	1.56	0.97	0.66	0.22	0.11	0.04	0.01
> 30,000	>20	Lake Elsinore	3.32	1.67	1.00	0.66	0.21	0.10	0.04	0.01
> 30,000	>20	LAX	4.62	2.61	1.66	1.14	0.40	0.20	0.08	0.02
> 30,000	>20	Long Beach	2.55	1.28	0.76	0.51	0.17	0.08	0.03	0.01
> 30,000	>20	Lynwood	3.16	1.66	1.03	0.70	0.24	0.12	0.05	0.01
> 30,000	>20	Mission Viejo	3.31	1.69	1.01	0.67	0.21	0.10	0.04	0.01
> 30,000	>20	Palm Springs	2.69	1.32	0.77	0.51	0.16	0.08	0.03	0.01
> 30,000	>20	Perris	3.43	1.74	1.04	0.68	0.22	0.10	0.04	0.01
> 30,000	>20	Pico Rivera	3.53	1.89	1.17	0.79	0.26	0.13	0.05	0.01
> 30,000	>20	Pomona	2.99	1.56	0.97	0.66	0.22	0.11	0.04	0.01
> 30,000	>20	Redlands	3.50	1.80	1.09	0.73	0.24	0.12	0.05	0.01
> 30,000	>20	Reseda	2.58	1.21	0.69	0.44	0.13	0.06	0.02	0.01
> 30,000	>20	Riverside	3.58	1.90	1.18	0.80	0.27	0.13	0.05	0.01
> 30,000	>20	San Bernardino	3.46	1.79	1.09	0.73	0.24	0.12	0.04	0.01
> 30,000	>20	Santa Clarita	3.19	1.73	1.08	0.74	0.26	0.13	0.05	0.01
> 30,000	>20	Upland	3.89	2.10	1.31	0.89	0.31	0.15	0.06	0.01
> 30,000	>20	West LA	3.18	1.72	1.08	0.74	0.25	0.12	0.05	0.01

*Note: Facilities with building dimensions outside the ranges in Tables 4 must perform Tier 3 or 4 dispersion modeling

Table 5.1
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating More Than 12 Hours per Day

Building Area ≤ 3,000 ft^2, Height ≤ 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
≤ 3,000	≤ 20	Anaheim	20.33	7.40	3.98	2.53	0.81	0.41	0.17	0.05
≤ 3,000	≤ 20	Azusa	19.40	7.11	3.79	2.40	0.76	0.39	0.16	0.05
≤ 3,000	≤ 20	Banning	29.64	12.42	6.96	4.51	1.52	0.79	0.34	0.11
≤ 3,000	≤ 20	Burbank	19.10	6.77	3.58	2.25	0.72	0.36	0.15	0.05
≤ 3,000	≤ 20	Central LA	16.03	5.71	3.07	1.95	0.63	0.32	0.13	0.04
≤ 3,000	≤ 20	Compton	21.02	7.40	3.93	2.49	0.80	0.41	0.17	0.05
≤ 3,000	≤ 20	Costa Mesa	25.65	9.20	4.86	3.05	0.96	0.48	0.20	0.06
≤ 3,000	≤ 20	Crestline	23.49	8.37	4.40	2.76	0.88	0.44	0.19	0.06
≤ 3,000	≤ 20	Fontana	24.92	9.60	5.21	3.33	1.09	0.56	0.24	0.07
≤ 3,000	≤ 20	Indio	26.75	10.36	5.62	3.59	1.19	0.61	0.27	0.09
≤ 3,000	≤ 20	La Habra	24.67	8.71	4.61	2.90	0.92	0.47	0.20	0.06
≤ 3,000	≤ 20	Lake Elsinore	24.71	8.94	4.71	2.95	0.94	0.47	0.20	0.06
≤ 3,000	≤ 20	LAX	24.26	9.16	4.93	3.13	1.00	0.51	0.21	0.07
≤ 3,000	≤ 20	Long Beach	19.36	6.87	3.63	2.28	0.73	0.37	0.16	0.05
≤ 3,000	≤ 20	Lynwood	23.89	8.50	4.50	2.84	0.91	0.46	0.19	0.06
≤ 3,000	≤ 20	Mission Viejo	23.44	8.45	4.44	2.77	0.87	0.44	0.18	0.06
≤ 3,000	≤ 20	Palm Springs	19.46	6.87	3.60	2.25	0.71	0.36	0.15	0.05
≤ 3,000	≤ 20	Perris	27.48	10.06	5.33	3.35	1.07	0.54	0.23	0.07
≤ 3,000	≤ 20	Pico Rivera	19.93	7.33	3.90	2.46	0.78	0.39	0.16	0.05
≤ 3,000	≤ 20	Pomona	23.75	8.40	4.45	2.80	0.89	0.45	0.19	0.06
≤ 3,000	≤ 20	Redlands	26.76	9.60	5.07	3.19	1.01	0.51	0.22	0.07
≤ 3,000	≤ 20	Reseda	23.86	8.27	4.28	2.66	0.84	0.42	0.18	0.06
≤ 3,000	≤ 20	Riverside	23.99	8.80	4.68	2.96	0.94	0.48	0.20	0.06
≤ 3,000	≤ 20	San Bernardino	25.53	9.31	4.96	3.13	1.00	0.51	0.22	0.07
≤ 3,000	≤ 20	Santa Clarita	21.89	8.02	4.26	2.69	0.86	0.44	0.19	0.06
≤ 3,000	≤ 20	Upland	24.01	8.91	4.78	3.03	0.98	0.49	0.21	0.06
≤ 3,000	≤ 20	West LA	23.97	8.63	4.59	2.89	0.92	0.46	0.19	0.06

*Note: Facilities with building dimensions outside the ranges in Tables 5 must perform Tier 3 or 4 dispersion modeling

Table 5.2
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating More Than 12 Hours per Day

Building Area > 3,000 to 10,000 ft^2, Height ≤ 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 3,000 to 10,000	≤ 20	Anaheim	15.93	6.47	3.62	2.35	0.78	0.40	0.17	0.05
> 3,000 to 10,000	≤ 20	Azusa	15.27	6.20	3.45	2.23	0.74	0.38	0.16	0.05
> 3,000 to 10,000	≤ 20	Banning	23.82	10.88	6.33	4.20	1.47	0.77	0.34	0.11
> 3,000 to 10,000	≤ 20	Burbank	14.93	5.90	3.26	2.09	0.69	0.35	0.15	0.05
> 3,000 to 10,000	≤ 20	Central LA	12.56	4.99	2.79	1.81	0.60	0.31	0.13	0.04
> 3,000 to 10,000	≤ 20	Compton	16.40	6.44	3.57	2.31	0.77	0.40	0.17	0.05
> 3,000 to 10,000	≤ 20	Costa Mesa	20.09	8.01	4.41	2.83	0.93	0.47	0.20	0.06
> 3,000 to 10,000	≤ 20	Crestline	18.39	7.28	4.00	2.56	0.84	0.43	0.18	0.06
> 3,000 to 10,000	≤ 20	Fontana	19.79	8.39	4.74	3.09	1.04	0.54	0.23	0.07
> 3,000 to 10,000	≤ 20	Indio	21.26	9.04	5.11	3.34	1.14	0.60	0.26	0.09
> 3,000 to 10,000	≤ 20	La Habra	19.24	7.58	4.18	2.69	0.89	0.45	0.19	0.06
> 3,000 to 10,000	≤ 20	Lake Elsinore	19.43	7.78	4.27	2.74	0.90	0.46	0.20	0.06
> 3,000 to 10,000	≤ 20	LAX	19.22	8.00	4.48	2.90	0.97	0.49	0.21	0.06
> 3,000 to 10,000	≤ 20	Long Beach	15.14	5.98	3.29	2.12	0.70	0.36	0.15	0.05
> 3,000 to 10,000	≤ 20	Lynwood	18.64	7.40	4.09	2.64	0.88	0.45	0.19	0.06
> 3,000 to 10,000	≤ 20	Mission Viejo	18.44	7.35	4.02	2.57	0.84	0.43	0.18	0.06
> 3,000 to 10,000	≤ 20	Palm Springs	15.19	5.97	3.26	2.09	0.68	0.35	0.15	0.05
> 3,000 to 10,000	≤ 20	Perris	21.65	8.76	4.83	3.11	1.03	0.53	0.23	0.07
> 3,000 to 10,000	≤ 20	Pico Rivera	15.73	6.40	3.55	2.28	0.75	0.38	0.16	0.05
> 3,000 to 10,000	≤ 20	Pomona	18.51	7.31	4.04	2.60	0.86	0.44	0.19	0.06
> 3,000 to 10,000	≤ 20	Redlands	20.96	8.35	4.60	2.96	0.97	0.50	0.21	0.07
> 3,000 to 10,000	≤ 20	Reseda	18.57	7.17	3.88	2.47	0.80	0.41	0.18	0.06
> 3,000 to 10,000	≤ 20	Riverside	18.90	7.67	4.25	2.74	0.91	0.47	0.20	0.06
> 3,000 to 10,000	≤ 20	San Bernardino	20.07	8.12	4.50	2.90	0.96	0.50	0.21	0.07
> 3,000 to 10,000	≤ 20	Santa Clarita	17.24	6.98	3.87	2.50	0.83	0.43	0.18	0.06
> 3,000 to 10,000	≤ 20	Upland	18.94	7.78	4.35	2.82	0.94	0.48	0.21	0.06
> 3,000 to 10,000	≤ 20	West LA	18.76	7.52	4.17	2.69	0.89	0.45	0.19	0.06

*Note: Facilities with building dimensions outside the ranges in Tables 5 must perform Tier 3 or 4 dispersion modeling

Table 5.3
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating More Than 12 Hours per Day

Building Area > 3,000 to 10,000 ft², Height > 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m³]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft²)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 3,000 to 10,000	>20	Anaheim	14.07	6.16	3.51	2.30	0.77	0.40	0.17	0.05
> 3,000 to 10,000	>20	Azusa	13.11	5.77	3.29	2.15	0.72	0.37	0.16	0.05
> 3,000 to 10,000	>20	Banning	15.44	8.15	5.09	3.51	1.31	0.71	0.32	0.10
> 3,000 to 10,000	>20	Burbank	13.10	5.59	3.15	2.05	0.68	0.35	0.15	0.05
> 3,000 to 10,000	>20	Central LA	10.92	4.78	2.73	1.78	0.60	0.31	0.13	0.04
> 3,000 to 10,000	>20	Compton	14.74	6.23	3.51	2.28	0.77	0.39	0.17	0.05
> 3,000 to 10,000	>20	Costa Mesa	17.74	7.57	4.26	2.76	0.92	0.47	0.20	0.06
> 3,000 to 10,000	>20	Crestline	16.00	6.82	3.84	2.49	0.83	0.43	0.18	0.06
> 3,000 to 10,000	>20	Fontana	15.41	7.24	4.26	2.83	0.98	0.52	0.22	0.07
> 3,000 to 10,000	>20	Indio	15.55	7.40	4.40	2.96	1.06	0.56	0.25	0.08
> 3,000 to 10,000	>20	La Habra	17.22	7.27	4.08	2.65	0.88	0.45	0.19	0.06
> 3,000 to 10,000	>20	Lake Elsinore	16.09	7.06	4.01	2.61	0.88	0.45	0.19	0.06
> 3,000 to 10,000	>20	LAX	15.78	7.21	4.17	2.75	0.93	0.48	0.20	0.06
> 3,000 to 10,000	>20	Long Beach	13.29	5.67	3.19	2.07	0.69	0.35	0.15	0.05
> 3,000 to 10,000	>20	Lynwood	16.84	7.12	4.00	2.59	0.87	0.44	0.19	0.06
> 3,000 to 10,000	>20	Mission Viejo	15.58	6.77	3.82	2.48	0.82	0.42	0.18	0.06
> 3,000 to 10,000	>20	Palm Springs	13.13	5.58	3.13	2.02	0.67	0.35	0.15	0.05
> 3,000 to 10,000	>20	Perris	17.55	7.79	4.46	2.92	0.99	0.51	0.22	0.07
> 3,000 to 10,000	>20	Pico Rivera	13.22	5.88	3.36	2.20	0.73	0.38	0.16	0.05
> 3,000 to 10,000	>20	Pomona	16.74	7.05	3.95	2.56	0.85	0.44	0.19	0.06
> 3,000 to 10,000	>20	Redlands	18.51	7.89	4.44	2.88	0.96	0.49	0.21	0.07
> 3,000 to 10,000	>20	Reseda	16.65	6.82	3.76	2.42	0.80	0.41	0.18	0.06
> 3,000 to 10,000	>20	Riverside	16.20	7.10	4.04	2.64	0.89	0.46	0.20	0.06
> 3,000 to 10,000	>20	San Bernardino	17.04	7.44	4.24	2.77	0.94	0.48	0.21	0.07
> 3,000 to 10,000	>20	Santa Clarita	14.00	6.28	3.61	2.37	0.80	0.42	0.18	0.06
> 3,000 to 10,000	>20	Upland	16.17	7.19	4.12	2.70	0.91	0.47	0.20	0.06
> 3,000 to 10,000	>20	West LA	16.89	7.21	4.06	2.64	0.88	0.45	0.19	0.06

*Note: Facilities with building dimensions outside the ranges in Tables 5 must perform Tier 3 or 4 dispersion modeling

Table 5.4
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating More Than 12 Hours per Day

Building Area > 10,000 to 30,000 ft^2, Height ≤ 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 10,000 to 30,000	≤ 20	Anaheim	11.28	5.27	3.12	2.09	0.73	0.38	0.17	0.05
> 10,000 to 30,000	≤ 20	Azusa	10.85	5.03	2.96	1.98	0.69	0.36	0.15	0.05
> 10,000 to 30,000	≤ 20	Banning	17.16	8.82	5.44	3.72	1.38	0.74	0.33	0.11
> 10,000 to 30,000	≤ 20	Burbank	10.49	4.78	2.80	1.86	0.65	0.34	0.15	0.05
> 10,000 to 30,000	≤ 20	Central LA	8.84	4.06	2.41	1.61	0.57	0.30	0.13	0.04
> 10,000 to 30,000	≤ 20	Compton	11.50	5.23	3.08	2.06	0.73	0.38	0.17	0.05
> 10,000 to 30,000	≤ 20	Costa Mesa	14.20	6.48	3.78	2.51	0.87	0.45	0.20	0.06
> 10,000 to 30,000	≤ 20	Crestline	12.96	5.88	3.43	2.28	0.79	0.41	0.18	0.06
> 10,000 to 30,000	≤ 20	Fontana	14.15	6.80	4.07	2.74	0.98	0.52	0.23	0.07
> 10,000 to 30,000	≤ 20	Indio	15.18	7.32	4.39	2.97	1.07	0.57	0.26	0.08
> 10,000 to 30,000	≤ 20	La Habra	13.51	6.14	3.59	2.39	0.83	0.43	0.19	0.06
> 10,000 to 30,000	≤ 20	Lake Elsinore	13.76	6.28	3.66	2.43	0.84	0.44	0.19	0.06
> 10,000 to 30,000	≤ 20	LAX	13.73	6.49	3.85	2.58	0.91	0.47	0.20	0.06
> 10,000 to 30,000	≤ 20	Long Beach	10.64	4.84	2.83	1.88	0.66	0.34	0.15	0.05
> 10,000 to 30,000	≤ 20	Lynwood	13.12	5.99	3.51	2.34	0.82	0.43	0.19	0.06
> 10,000 to 30,000	≤ 20	Mission Viejo	13.06	5.94	3.45	2.28	0.79	0.41	0.18	0.06
> 10,000 to 30,000	≤ 20	Palm Springs	10.66	4.81	2.79	1.85	0.64	0.34	0.15	0.05
> 10,000 to 30,000	≤ 20	Perris	15.34	7.07	4.14	2.76	0.96	0.50	0.22	0.07
> 10,000 to 30,000	≤ 20	Pico Rivera	11.21	5.19	3.05	2.03	0.70	0.36	0.16	0.05
> 10,000 to 30,000	≤ 20	Pomona	12.99	5.92	3.47	2.31	0.81	0.42	0.18	0.06
> 10,000 to 30,000	≤ 20	Redlands	14.79	6.75	3.95	2.63	0.91	0.48	0.21	0.07
> 10,000 to 30,000	≤ 20	Reseda	12.97	5.76	3.32	2.19	0.75	0.39	0.17	0.05
> 10,000 to 30,000	≤ 20	Riverside	13.43	6.21	3.65	2.44	0.85	0.45	0.19	0.06
> 10,000 to 30,000	≤ 20	San Bernardino	14.21	6.57	3.86	2.58	0.90	0.47	0.21	0.07
> 10,000 to 30,000	≤ 20	Santa Clarita	12.21	5.65	3.32	2.22	0.78	0.41	0.18	0.06
> 10,000 to 30,000	≤ 20	Upland	13.49	6.31	3.74	2.50	0.88	0.46	0.20	0.06
> 10,000 to 30,000	≤ 20	West LA	13.27	6.10	3.58	2.39	0.83	0.43	0.19	0.06

*Note: Facilities with building dimensions outside the ranges in Tables 5 must perform Tier 3 or 4 dispersion modeling

Table 5.5
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating More Than 12 Hours per Day

Building Area > 10,000 to 30,000 ft^2, Height > 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 10,000 to 30,000	> 20	Anaheim	10.37	5.05	3.04	2.04	0.72	0.38	0.16	0.05
> 10,000 to 30,000	> 20	Azusa	9.67	4.73	2.84	1.91	0.68	0.35	0.15	0.05
> 10,000 to 30,000	> 20	Banning	11.82	6.80	4.44	3.15	1.23	0.68	0.31	0.10
> 10,000 to 30,000	> 20	Burbank	9.57	4.57	2.72	1.82	0.64	0.33	0.14	0.05
> 10,000 to 30,000	> 20	Central LA	8.05	3.92	2.35	1.59	0.56	0.29	0.13	0.04
> 10,000 to 30,000	> 20	Compton	10.71	5.09	3.03	2.03	0.72	0.38	0.16	0.05
> 10,000 to 30,000	> 20	Costa Mesa	12.95	6.18	3.67	2.45	0.86	0.45	0.19	0.06
> 10,000 to 30,000	> 20	Crestline	11.68	5.57	3.31	2.22	0.78	0.41	0.18	0.06
> 10,000 to 30,000	> 20	Fontana	11.55	5.97	3.69	2.52	0.93	0.49	0.22	0.07
> 10,000 to 30,000	> 20	Indio	11.67	6.12	3.82	2.64	0.99	0.54	0.24	0.08
> 10,000 to 30,000	> 20	La Habra	12.51	5.93	3.52	2.35	0.83	0.43	0.19	0.06
> 10,000 to 30,000	> 20	Lake Elsinore	11.87	5.78	3.46	2.33	0.82	0.43	0.19	0.06
> 10,000 to 30,000	> 20	LAX	11.76	5.93	3.61	2.44	0.87	0.46	0.20	0.06
> 10,000 to 30,000	> 20	Long Beach	9.69	4.62	2.75	1.84	0.65	0.34	0.15	0.05
> 10,000 to 30,000	> 20	Lynwood	12.22	5.80	3.44	2.31	0.81	0.43	0.18	0.06
> 10,000 to 30,000	> 20	Mission Viejo	11.47	5.54	3.30	2.21	0.77	0.40	0.17	0.06
> 10,000 to 30,000	> 20	Palm Springs	9.56	4.55	2.69	1.80	0.63	0.33	0.14	0.05
> 10,000 to 30,000	> 20	Perris	12.96	6.39	3.85	2.60	0.93	0.49	0.22	0.07
> 10,000 to 30,000	> 20	Pico Rivera	9.81	4.83	2.90	1.95	0.69	0.36	0.15	0.05
> 10,000 to 30,000	> 20	Pomona	12.14	5.74	3.41	2.28	0.80	0.42	0.18	0.06
> 10,000 to 30,000	> 20	Redlands	13.48	6.43	3.82	2.56	0.90	0.47	0.20	0.07
> 10,000 to 30,000	> 20	Reseda	11.96	5.53	3.23	2.15	0.75	0.39	0.17	0.05
> 10,000 to 30,000	> 20	Riverside	11.92	5.81	3.49	2.35	0.83	0.44	0.19	0.06
> 10,000 to 30,000	> 20	San Bernardino	12.50	6.09	3.66	2.47	0.88	0.46	0.20	0.07
> 10,000 to 30,000	> 20	Santa Clarita	10.36	5.15	3.12	2.11	0.76	0.40	0.17	0.06
> 10,000 to 30,000	> 20	Upland	11.95	5.89	3.56	2.40	0.86	0.45	0.20	0.06
> 10,000 to 30,000	> 20	West LA	12.32	5.89	3.50	2.35	0.82	0.43	0.19	0.06

*Note: Facilities with building dimensions outside the ranges in Tables 5 must perform Tier 3 or 4 dispersion modeling

Table 5.6
Dispersion Factors (χ/Q)
for Volume Source Equipment
Operating More Than 12 Hours per Day

Building Area > 30,000 ft^2, Height > 20 ft*

Carcinogenic, Chronic and Chronic 8-Hour χ/Q Values ([μg/m^3]/[ton/year])

Source Dimensions*		Location	Downwind Distance (meters)							
Area (ft^2)	Ht (ft)		25	50	75	100	200	300	500	1,000
> 30,000	>20	Anaheim	6.74	3.75	2.42	1.70	0.65	0.35	0.16	0.05
> 30,000	>20	Azusa	6.28	3.51	2.26	1.59	0.61	0.33	0.15	0.05
> 30,000	>20	Banning	8.02	5.13	3.57	2.63	1.11	0.63	0.29	0.10
> 30,000	>20	Burbank	6.17	3.38	2.16	1.51	0.58	0.31	0.14	0.04
> 30,000	>20	Central LA	5.24	2.91	1.87	1.32	0.51	0.27	0.12	0.04
> 30,000	>20	Compton	6.86	3.75	2.40	1.69	0.65	0.35	0.16	0.05
> 30,000	>20	Costa Mesa	8.33	4.56	2.91	2.04	0.77	0.42	0.19	0.06
> 30,000	>20	Crestline	7.52	4.12	2.63	1.84	0.70	0.38	0.17	0.06
> 30,000	>20	Fontana	7.63	4.45	2.94	2.10	0.83	0.46	0.21	0.07
> 30,000	>20	Indio	7.74	4.58	3.06	2.21	0.90	0.50	0.23	0.08
> 30,000	>20	La Habra	8.00	4.37	2.79	1.95	0.74	0.40	0.18	0.06
> 30,000	>20	Lake Elsinore	7.72	4.28	2.75	1.93	0.74	0.40	0.18	0.06
> 30,000	>20	LAX	7.71	4.40	2.87	2.03	0.79	0.43	0.19	0.06
> 30,000	>20	Long Beach	6.22	3.41	2.18	1.53	0.58	0.32	0.14	0.05
> 30,000	>20	Lynwood	7.81	4.27	2.73	1.91	0.73	0.40	0.18	0.06
> 30,000	>20	Mission Viejo	7.44	4.09	2.62	1.83	0.70	0.38	0.17	0.05
> 30,000	>20	Palm Springs	6.11	3.34	2.13	1.49	0.57	0.31	0.14	0.05
> 30,000	>20	Perris	8.43	4.74	3.07	2.16	0.84	0.46	0.21	0.07
> 30,000	>20	Pico Rivera	6.43	3.59	2.31	1.63	0.62	0.33	0.15	0.05
> 30,000	>20	Pomona	7.75	4.23	2.70	1.89	0.72	0.39	0.17	0.06
> 30,000	>20	Redlands	8.64	4.74	3.03	2.12	0.81	0.44	0.20	0.06
> 30,000	>20	Reseda	7.54	4.04	2.55	1.78	0.67	0.37	0.16	0.05
> 30,000	>20	Riverside	7.73	4.30	2.77	1.95	0.75	0.41	0.18	0.06
> 30,000	>20	San Bernardino	8.08	4.51	2.91	2.05	0.79	0.43	0.19	0.06
> 30,000	>20	Santa Clarita	6.76	3.82	2.48	1.75	0.68	0.37	0.17	0.05
> 30,000	>20	Upland	7.77	4.37	2.83	2.00	0.77	0.42	0.19	0.06
> 30,000	>20	West LA	7.91	4.34	2.78	1.95	0.74	0.40	0.18	0.06

*Note: Facilities with building dimensions outside the ranges in Tables 5 must perform Tier 3 or 4 dispersion modeling

Table 6.1
Dispersion Factors (χ/Q)
for Acute Hazard Index
Point Source Equipment

All Operating Conditions χ/Q Values ([μg/m^3]/[lb/hr])

Stack Ht (ft)	Downwind Distance (meters)							
	25	**50**	**75**	**100**	**200**	**300**	**500**	**1,000**
≥ 14 to 24*	802.52	335.78	271.20	224.43	95.39	31.94	9.05	3.38
> 24 to 49	507.65	227.75	175.96	132.75	58.26	33.76	16.85	6.44
> 49	35.82	28.25	44.38	51.18	41.24	28.42	15.85	6.51

*Note: Facilities with stack heights less than 14 feet must perform Tier 3 or 4 dispersion modeling

Table 7.1
Dispersion Factors (χ/Q)
for Acute Hazard Index
Volume Source Equipment

All Operating Conditions χ/Q Values ([μg/m^3]/[lb/hr])

Source Dimensions*		Downwind Distance (meters)							
Area (ft^2)	**Ht (ft)**	**25**	**50**	**75**	**100**	**200**	**300**	**500**	**1,000**
≤ 3,000	≤ 20	875.45	316.53	165.11	107.40	36.79	21.11	10.44	3.99
> 3,000 to 10,000	≤ 20	430.68	204.89	125.46	86.86	33.25	19.75	10.04	3.91
> 3,000 to 10,000	> 20	355.29	196.58	123.09	84.50	30.58	16.12	8.17	3.21
> 10,000 to 30,000	≤ 20	659.28	267.89	149.04	99.31	35.51	20.62	10.29	3.96
> 10,000 to 30,000	>20	500.86	248.96	146.57	96.92	32.88	16.94	8.37	3.25
> 30,000	≥ 20	215.10	135.21	92.18	66.89	26.89	14.80	7.83	3.14

*Note: Facilities with building dimensions outside the ranges here must perform Tier 3 or 4 dispersion modeling

Table – 8.1
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor $(mg/kg\text{-}dy)^{-1}$**	**MP_R**	**MP_W**	**MWAF[1]**	**REL $\mu g/m^3$**	**MP_R**	**MP_W**	**REL $(\mu g/m^3)$**	**REL $(\mu g/m^3)$**
Acetaldehyde	75-07-0	1.00E-02	1.00	1.00	1	1.40E+02	1.00	1.00	3.00E+02	4.70E+02
Acetamide	60-35-5	7.00E-02	1.00	1.00	1					
Acrolein	107-02-8				1	3.50E-01	1.00	1.00	7.00E-01	2.50E+00
Acrylamide	79-06-1	4.50E+00	1.00	1.00	1					
Acrylic Acid	79-10-7				1					6.00E+03
Acrylonitrile	107-13-1	1.00E+00	1.00	1.00	1	5.00E+00	1.00	1.00		
Allyl Chloride	107-05-1	2.10E-02	1.00	1.00	1					
2-Aminoanthraquinone	117-79-3	3.30E-02	1.00	1.00	1					
Ammonia	7664-41-7				1	2.00E+02	1.00	1.00		3.20E+03
Aniline	62-53-3	5.70E-03	1.00	1.00	1					
Arsenic and Compounds (Inorganic)	7440-38-2	1.20E+01	9.71	4.52	1	1.50E-02	88.03	28.37	1.50E-02	2.00E-01
Arsine	7784-42-1				1	1.50E-02	1.00	1.00	1.50E-02	2.00E-01
Asbestos[2]	1332-21-4	2.20E+02	1.00	1.00	333.33					
Benzene	71-43-2	1.00E-01	1.00	1.00	1	3.00E+00	1.00	1.00	3.00E+00	2.70E+01
Benzidine (and Its Salts)	92-87-5	5.00E+02	1.00	1.00	1					
Benzidine Based Dyes	1020	5.00E+02	1.00	1.00	1					
Direct Black	1937-37-7	5.00E+02	1.00	1.00	1					
Direct Blue	2602-46-2	5.00E+02	1.00	1.00	1					
Direct Brown (Technical Grade)	16071-86-6	5.00E+02	1.00	1.00	1					
Benzyl Chloride	100-44-7	1.70E-01	1.00	1.00	1					2.40E+02
Beryllium and Compounds	7440-41-7	8.40E+00	1.00	1.00	1	7.00E-03	1.00	1.00		
Bis(2-Chloroethyl)Ether (Dichloroethyl Ether)	111-44-4	2.50E+00	1.00	1.00	1					
Bis(Chloromethyl)Ether	542-88-1	4.60E+01	1.00	1.00	1					
Potassium Bromate	7758-01-2	4.90E-01	1.00	1.00	1					
1,3-Butadiene	106-99-0	6.00E-01	1.00	1.00	1	2.00E+00	1.00	1.00	9.00E+00	6.60E+02
Cadmium and Compounds	7440-43-9	1.50E+01	1.00	1.00	1	2.00E-02	1.98	1.20		
Carbon Disulfide	75-15-0				1	8.00E+02	1.00	1.00		6.20E+03
Carbon Tetrachloride (Tetrachloromethane)	56-23-5	1.50E-01	1.00	1.00	1	4.00E+01	1.00	1.00		1.90E+03

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP$_R$**	**MP$_W$**	**MWAF[1]**	**REL µg/m^3**	**MP$_R$**	**MP$_W$**	**REL (µg/m^3)**	**REL (µg/m^3)**
Chlorinated Paraffins	108171-26-2	8.90E-02	1.00	1.00	1					
Chlorine	7782-50-5				1	2.00E-01	1.00	1.00		2.10E+02
Chlorine Dioxide	10049-04-4				1	6.00E-01	1.00	1.00		
4-Chloro-o-Phenylenediamine	95-83-0	1.60E-02	1.00	1.00	1					
Chlorobenzene	108-90-7				1	1.00E+03	1.00	1.00		
Chloroform	67-66-3	1.90E-02	1.00	1.00	1	3.00E+02	1.00	1.00		1.50E+02
Pentachlorophenol	87-86-5	1.80E-02	1.00	1.00	1					
2,4,6-Trichlorophenol	88-06-2	7.00E-02	1.00	1.00	1					
Chloropicrin	76-06-2				1	4.00E-01	1.00	1.00		2.90E+01
P-Chloro-o-Toluidine	95-69-2	2.70E-01	1.00	1.00	1					
Chromium 6+	18540-29-9	5.10E+02	1.60	1.02	1	2.00E-01	2.44	1.00		
Barium Chromate	10294-40-3	5.10E+02	1.60	1.02	0.2053	2.00E-01	2.44	1.00		
Calcium Chromate	13765-19-0	5.10E+02	1.60	1.02	0.3332	2.00E-01	2.44	1.00		
Lead Chromate	7758-97-6	5.10E+02	1.60	1.02	0.1609	2.00E-01	2.44	1.00		
Sodium Dichromate	10588-01-9	5.10E+02	1.60	1.02	0.397	2.00E-01	2.44	1.00		
Strontium Chromate	7789-06-2	5.10E+02	1.60	1.02	0.2554	2.00E-01	2.44	1.00		
Chromic Trioxide (as Chromic Acid Mist)	1333-82-0	5.10E+02	1.60	1.02	0.52	2.00E-03	1.00	1.00		
Copper and Compounds	7440-50-8				1					1.00E+02
p-Cresidine	120-71-8	1.50E-01	1.00	1.00	1					
Cresols (Mixtures of)	1319-77-3				1	6.00E+02	1.00	1.00		
m-Cresol	108-39-4				1	6.00E+02	1.00	1.00		
o-Cresol	95-48-7				1	6.00E+02	1.00	1.00		
p-Cresol	106-44-5				1	6.00E+02	1.00	1.00		
Cupferron	135-20-6	2.20E-01	1.00	1.00	1					
Hydrogen Cyanide (Hydrocyanic Acid)	74-90-8				1	9.00E+00	1.00	1.00		3.40E+02
2,4-Diaminoanisole	615-05-4	2.30E-02	1.00	1.00	1					
2,4-Diaminotoluene	95-80-7	4.00E+00	1.00	1.00	1					
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	7.00E+00	1.00	1.00	1					
p-Dichlorobenzene	106-46-7	4.00E-02	1.00	1.00	1	8.00E+02	1.00	1.00		
3,3-Dichlorobenzidine	91-94-1	1.20E+00	1.00	1.00	1					

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP_R**	**MP_W**	**MWAF[1]**	**REL µg/m^3**	**MP_R**	**MP_W**	**REL (µg/m^3)**	**REL (µg/m^3)**
1,1,-Dichloroethane (Ethylidene Dichloride)	75-34-3	5.70E-03	1.00	1.00	1					
Di(2-Ethylhexyl)Phthalate (DEHP)	117-81-7	8.40E-03	5.22	1.05	1					
Diethanolamine	111-42-2				1	3.00E+00	1.00	1.00		
p-Dimethylaminoazobenzene	60-11-7	4.60E+00	1.00	1.00	1					
n,n-Dimethyl Formamide	68-12-2				1	8.00E+01	1.00	1.00		
2,4-Dinitrotoluene	121-14-2	3.10E-01	1.00	1.00	1					
1,2-Diphenylhydrazine {Hydrazobenzene}	122-66-7	8.8E-01	1.00	1.00	1					
1,4-Dioxane (1,4-Diethylene Dioxide)	123-91-1	2.70E-02	1.00	1.00	1	3.00E+03	1.00	1.00		3.00E+03
Epichlorohydrin (1-Chloro-2,3-Epoxypropane)	106-89-8	8.00E-02	1.00	1.00	1	3.00E+00	1.00	1.00		1.30E+03
1,2-Epoxybutane	106-88-7				1	2.00E+01	1.00	1.00		
Ethyl Benzene	100-41-4	8.70E-03	1.00	1.00	1	2.00E+03	1.00	1.00		
Ethyl Chloride (Chloroethane)	75-00-3				1	3.00E+04	1.00	1.00		
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	2.50E-01	1.00	1.00	1	8.00E-01	1.00	1.00		
Ethylene Dichloride (1,2-Dichloroethane)	107-06-2	7.20E-02	1.00	1.00	1	4.00E+02	1.00	1.00		
Ethylene Glycol	107-21-1				1	4.00E+02	1.00	1.00		
Ethylene Oxide (1,2-Epoxyethane)	75-21-8	3.10E-01	1.00	1.00	1	3.00E+01	1.00	1.00		
Ethylene Thiourea	96-45-7	4.50E-02	1.00	1.00	1					
Flourides	1101				1	1.30E+01	5.70	2.85		2.40E+02
Hydrogen Fluoride (Hydrofluoric Acid)	7664-39-3				1	1.40E+01	6.06	2.99		2.40E+02
Formaldehyde	50-00-0	2.10E-02	1.00	1.00	1	9.00E+00	1.00	1.00	9.00E+00	5.50E+01
Glutaraldehyde	111-30-8				1	8.00E-02	1.00	1.00		
Ethylene Glycol Butyl Ether – EGBE	111-76-2				1					1.40E+04
Ethylene Glycol Ethyl Ether – EGEE	110-80-5				1	7.00E+01	1.00	1.00		3.70E+02

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP_R**	**MP_W**	**MWAF[1]**	**REL µg/m^3**	**MP_R**	**MP_W**	**REL (µg/m^3)**	**REL (µg/m^3)**
Ethylene Glycol Ethyl Ether Acetate – EGEEA	111-15-9				1	3.00E+02	1.00	1.00		1.40E+02
Ethylene Glycol Methyl Ether – EGME	109-86-4				1	6.00E+01	1.00	1.00		9.30E+01
Ethylene Glycol Methyl Ether Acetate – EGMEA	110-49-6				1	9.00E+01	1.00	1.00		
Hexachlorobenzene	118-74-1	1.80E+00	1.00	1.00	1					
Hexachlorocyclohexanes	608-73-1	4.00E+00	5.39	1.25	1					
Alpha-Hexachlorocyclohexane	319-84-6	4.00E+00	5.39	1.25	1					
Beta-Hexachlorocyclohexane	319-85-7	4.00E+00	5.39	1.25	1					
Gamma-Hexachlorocyclohexane (Lindane)	58-89-9	1.10E+00	5.39	1.25	1					
n-Hexane	110-54-3				1	7.00E+03	1.00	1.00		
Hydrazine	302-01-2	1.70E+01	1.00	1.00	1	2.00E-01	1.00	1.00		
Hydrochloric Acid (Hydrogen Chloride)	7647-01-0				1	9.00E+00	1.00	1.00		2.10E+03
Hydrogen Sulfide	7783-06-4				1	1.00E+01	1.00	1.00		4.20E+01
Isophorone	78-59-1				1	2.00E+03	1.00	1.00		
Isopropyl Alcohol (Isopropanol)	67-63-0				1	7.00E+03	1.00	1.00		3.20E+03
Lead and Compounds (Inorganic)	7439-92-1	4.20E-02	11.41	5.83	1					
Lead Acetate	301-04-2	4.20E-02	11.41	5.83	0.637					
Lead Phosphate	7446-27-7	4.20E-02	11.41	5.83	0.7659					
Lead Subacetate	1335-32-6	4.20E-02	11.41	5.83	0.7696					
Maleic Anhydride	108-31-6				1	7.00E-01	1.00	1.00		
Manganese and Compounds	7439-96-5				1	9.00E-02	1.00	1.00	1.70E-01	
Mercury and Compounds (Inorganic)	7439-97-6				1	3.00E-02	3.86	2.11	6.00E-02	6.00E-01
Methyl Mercury[3]	593-74-8									
Mercuric Chloride	7487-94-7				1	3.00E-02	3.86	2.11	6.00E-02	6.00E-01
Methanol	67-56-1				1	4.00E+03	1.00	1.00		2.80E+04
Methyl Bromide (Bromomethane)	74-83-9				1	5.00E+00	1.00	1.00		3.90E+03

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP$_R$**	**MP$_W$**	**MWAF[1]**	**REL µg/m^3**	**MP$_R$**	**MP$_W$**	**REL (µg/m^3)**	**REL (µg/m^3)**
Methyl Tertiary-Butyl Ether	1634-04-4	1.80E-03	1.00	1.00	1	8.00E+03	1.00	1.00		
Methyl Chloroform (1,1,1-Trichloroethane)	71-55-6				1	1.00E+03	1.00	1.00		6.80E+04
Methyl Ethyl Ketone (2-Butanone)	78-93-3				1					1.30E+04
Methyl Isocyanate	624-83-9				1	1.00E+00	1.00	1.00		
4,4'-Methylene Bis (2-Chloroaniline) (MOCA)	101-14-4	1.50E+00	1.00	1.00	1					
Methylene Chloride (Dichloromethane)	75-09-2	3.50E-03	1.00	1.00	1	4.00E+02	1.00	1.00		1.40E+04
4,4'-Methylene Dianiline (and Its Dichloride)	101-77-9	1.60E+00	7.22	2.47	1	2.00E+01	1.00	1.00		
Methylene Diphenyl Isocyanate	101-68-8				1	7.00E-01	1.00	1.00		
Michler's Ketone (4,4'-Bis(Dimethylamino)Benzophenone)	90-94-8	8.60E-01	1.00	1.00	1					
n-Nitrosodi-n-Butylamine	924-16-3	1.10E+01	1.00	1.00	1					
n-Nitrosodi-n-Propylamine	621-64-7	7.00E+00	1.00	1.00	1					
N-Nitrosodiethylamine	55-18-5	3.60E+01	1.00	1.00	1					
n-Nitrosodimethylamine	62-75-9	1.60E+01	1.00	1.00	1					
n-Nitrosodiphenylamine	86-30-6	9.00E-03	1.00	1.00	1					
n-Nitroso-n-Methylethylamine	10595-95-6	2.20E+01	1.00	1.00	1					
n-Nitroso-n-Methylurea	684-93-5	1.2E+02	1.00	1.00	1					
n-Nitroso-n-Ethylurea	759-73-9	2.7E+01	1.00	1.00	1					
n-Nitrosomorpholine	59-89-2	6.70E+00	1.00	1.00	1					
n-Nitrosopiperidine	100-75-4	9.40E+00	1.00	1.00	1					
n-Nitrosopyrrolidine	930-55-2	2.10E+00	1.00	1.00	1					
Nickel and Compounds	7440-02-0	9.10E-01	1.00	1.00	1	1.40E-02	1.00	1.00	6.00E-02	2.00E-01
Nickel Acetate	373-02-4	9.10E-01	1.00	1.00	0.3321	1.40E-02	1.00	1.00	6.00E-02	2.00E-01
Nickel Carbonate	3333-67-3	9.10E-01	1.00	1.00	0.4945	1.40E-02	1.00	1.00	6.00E-02	2.00E-01
Nickel Carbonyl	13463-39-3	9.10E-01	1.00	1.00	0.3438	1.40E-02	1.00	1.00	6.00E-02	2.00E-01
Nickel Hydroxide	12054-48-7	9.10E-01	1.00	1.00	0.6332	1.40E-02	1.00	1.00	6.00E-02	2.00E-01
Nickelocene	1271-28-9	9.10E-01	1.00	1.00	0.4937	1.40E-02	1.00	1.00	6.00E-02	2.00E-01

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP_R**	**MP_W**	**MWAF[1]**	**REL µg/m^3**	**MP_R**	**MP_W**	**REL (µg/m^3)**	**REL (µg/m^3)**
Nickel Oxide	1313-99-1	9.10E-01	1.00	1.00	0.7859	2.00E-02	1.00	1.00	6.00E-02	2.00E-01
Nickel Refinery Dust, Pyrometallurgical Process	1146	9.10E-01	1.00	1.00	1	1.40E-02	1.00	1.00	6.00E-02	2.00E-01
Nickel Subsulfide	12035-72-2	9.10E-01	1.00	1.00	0.2443	1.40E-02	1.00	1.00	6.00E-02	2.00E-01
Nitric Acid	7697-37-2				1					8.60E+01
p-Nitrosodiphenylamine	156-10-5	2.20E-02	1.00	1.00	1					
Particulate Emissions from Diesel-Fueled Engines	9901	1.10E+00	1.00	1.00	1	5.00E+00	1.00	1.00		
Perchloroethylene (Tetrachloroethylene)	127-18-4	2.10E-02	1.00	1.00	1	3.50E+01	1.00	1.00		2.00E+04
Phenol	108-95-2				1	2.00E+02	1.00	1.00		5.80E+03
Phosgene	75-44-5				1					4.00E+00
Phosphine	7803-51-2				1	8.00E-01	1.00	1.00		
Phosphoric Acid	7664-38-2				1	7.00E+00	1.00	1.00		
Phthalic Anhydride	85-44-9				1	2.00E+01	1.00	1.00		
PCB (Polychlorinated Biphenyls)	1336-36-3	7.00E-02	18.94	13.12	1	4.0E-04	243.90	10.82		
3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	32598-13-3	1.30E+01	27.57	13.12	1	4.00E-01	243.90	10.82		
3,4,4',5-Tetrachlorobiphenyl (PCB 81)	70362-50-4	3.90E+01	27.57	13.12	1	1.30E-01	240.21	10.67		
2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	32598-14-4	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
2,3,4,4',5-Pentachlorobiphenyl (PCB 114)	74472-37-0	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
2,3',4,4',5-Pentachlorobiphenyl (PCB 118)	31508-00-6	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
2,3',4,4',5'-Pentachlorobiphenyl (PCB 123)	65510-44-3	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
3,3',4,4',5-Pentachlorobiphenyl (PCB 126)	57465-28-8	1.30E+04	27.57	13.12	1	4.00E-04	243.90	10.82		

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP$_R$**	**MP$_W$**	**MWAF[1]**	**REL µg/m^3**	**MP$_R$**	**MP$_W$**	**REL (µg/m^3)**	**REL (µg/m^3)**
2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	38380-08-4	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	69782-90-7	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	52663-72-6	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	32774-16-6	3.90E+03	27.57	13.12	1	1.30E-03	240.21	10.67		
2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	39635-31-9	3.90E+00	27.57	13.12	1	1.30E+00	240.21	10.67		
Polychlorinated Dibenzo-p-Dioxins (PCDD)	1086	1.30E+05	25.72	7.58	1	4.00E-05	307.60	6.73		
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	1746-01-6	1.30E+05	25.72	7.58	1	4.00E-05	307.60	6.73		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1.30E+05	25.72	7.58	1	4.00E-05	307.60	6.73		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1.30E+04	25.72	7.58	1	4.00E-04	307.60	6.73		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1.30E+04	25.72	7.58	1	4.00E-04	307.60	6.73		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1.30E+04	25.72	7.58	1	4.00E-04	307.60	6.73		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1.30E+03	25.72	7.58	1	4.00E-03	307.60	6.73		
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-Dioxin	3268-87-9	3.90E+01	25.72	7.58	1	1.30E-01	302.95	6.64		
Polychlorinated Dibenzofurans (PCDF)	1080	1.30E+05	18.19	7.58	1	4.00E-05	154.97	6.73		
2,3,7,8-Tetrachlorodibenzofuran	5120-73-19	1.30E+04	18.19	7.58	1	4.00E-04	154.97	6.73		
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	3.90E+03	18.19	7.58	1	1.30E-03	152.63	6.64		

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP$_R$**	**MP$_W$**	**MWAF[1]**	**REL µg/m^3**	**MP$_R$**	**MP$_W$**	**REL (µg/m^3)**	**REL (µg/m^3)**
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	3.90E+04	18.19	7.58	1	1.30E-04	152.63	6.64		
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	1.30E+04	18.19	7.58	1	4.00E-04	154.97	6.73		
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	1.30E+04	18.19	7.58	1	4.00E-04	154.97	6.73		
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	1.30E+04	18.19	7.58	1	4.00E-04	154.97	6.73		
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	1.30E+04	18.19	7.58	1	4.00E-04	154.97	6.73		
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	1.30E+03	18.19	7.58	1	4.00E-03	154.97	6.73		
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	1.30E+03	18.19	7.58	1	4.00E-03	154.97	6.73		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	3.90E+01	18.19	7.58	1	1.30E-01	152.63	6.64		
Polycyclic Aromatic Hydrocarbon (PAH)	1151	3.90E+00	23.12	6.62	1					
Benz(a)Anthracene	56-55-3	3.90E-01	23.12	6.62	1					
Benzo(a)Pyrene	50-32-8	3.90E+00	23.12	6.62	1					
Benzo(b)Fluoranthene	205-99-2	3.90E-01	23.12	6.62	1					
Benzo(j)Fluoranthene	205-82-3	3.90E-01	23.12	6.62	1					
Benzo(k)Fluoranthene	207-08-9	3.90E-01	23.12	6.62	1					
Chrysene	218-01-9	3.90E-02	23.12	6.62	1					
Dibenz(a,h)Acridine	226-36-8	3.90E-01	23.12	6.62	1					
Dibenz(a,h)Anthracene	53-70-3	4.10E+00	7.99	2.48	1					
Dibenz(a,j)Acridine	224-42-0	3.90E-01	23.12	6.62	1					
Dibenzo(a,e)Pyrene	192-65-4	3.90E+00	23.12	6.62	1					
Dibenzo(a,h)Pyrene	189-64-0	3.90E+01	23.12	6.62	1					
Dibenzo(a,i)Pyrene	189-55-9	3.90E+01	23.12	6.62	1					
Dibenzo(a,l)Pyrene	191-30-0	3.90E+01	23.12	6.62	1					
7H-Dibenzo(c,g)Carbazole	194-59-2	3.90E+00	23.12	6.62	1					
7,12-Dimethylbenz(a) Anthracene	57-97-6	2.50E+02	7.99	2.48	1					
1,6-Dinitropyrene	42397-64-8	3.90E+01	23.12	6.62	1					
1,8-Dinitropyrene	42397-65-9	3.90E+00	23.12	6.62	1					
Indeno(1,2,3-c,d)Pyrene	193-39-5	3.90E-01	23.12	6.62	1					

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP$_R$**	**MP$_W$**	**MWAF[1]**	**REL µg/m^3**	**MP$_R$**	**MP$_W$**	**REL (µg/m^3)**	**REL (µg/m^3)**
3-Methylcholanthrene	56-49-5	2.20E+01	7.99	2.48	1					
5-Methylchrysene	3697-24-3	3.90E+00	23.12	6.62	1					
Naphthalene	91-20-3	1.20E-01	1.00	1.00	1	9.00E+00	1.00	1.00		
5-Nitroacenaphthene	602-87-9	1.30E-01	7.99	2.49	1					
6-Nitrochrysene	7496-02-8	3.90E+01	23.12	6.62	1					
2-Nitrofluorene	607-57-8	3.90E-02	23.12	6.62	1					
1-Nitropyrene	5522-43-0	3.90E-01	23.12	6.62	1					
4-Nitropyrene	57835-92-4	3.90E-01	23.12	6.62	1					
1,3-Propane Sultone	1120-71-4	2.40E+00	1.00	1.00	1					
Propylene (Propene)	115-07-1				1	3.00E+03	1.00	1.00		
Propylene Glycol Monomethyl Ether	107-98-2				1	7.00E+03	1.00	1.00		
Propylene Oxide	75-56-9	1.30E-02	1.00	1.00	1	3.00E+01	1.00	1.00		3.10E+03
Selenium and Compounds	7782-49-2				1	2.00E+01	195.58	23.71		
Hydrogen Selenide	7783-07-5				1					5.00E+00
Selenium Sulfide	7446-34-6				1	2.00E+01	195.58	23.71		
Sodium Hydroxide	1310-73-2				1					8.00E+00
Styrene	100-42-5				1	9.00E+02	1.00	1.00		2.10E+04
Sulfuric Acid	7664-93-9				1	1.00E+00	1.00	1.00		1.20E+02
Sulfuric Acid (Sulfur Trioxide)	7446-71-9				1	1.00E+00	1.00	1.00		1.20E+02
Sulfuric Acid (Oleum)	8014-95-7				1					1.20E+02
1,1,2,2-Tetrachloroethane	79-34-5	2.00E-01	1.00	1.00	1					
Thioacetamide	62-55-5	6.10E+00	1.00	1.00	1					
Toluene	108-88-3				1	3.00E+02	1.00	1.00		3.70E+04
Toluene Diisocyantates	26471-62-5	3.90E-02	1.00	1.00	1	7.00E-02	1.00	1.00		
Toluene-2,4-Diisocyanate	584-84-9	3.90E-02	1.00	1.00	1	7.00E-02	1.00	1.00		
Toluene-2,6-Diisocyanate	91-08-7	3.90E-02	1.00	1.00	1	7.00E-02	1.00	1.00		
1,1,2-Trichloroethane (Vinyl Trichloride)	79-00-5	5.70E-02	1.00	1.00	1					
Trichloroethylene	79-01-6	7.00E-03	1.00	1.00	1	6.00E+02	1.00	1.00		
Triethylamine	121-44-8				1	2.00E+02	1.00	1.00		2.80E+03
Urethane (Ethyl Carbamate)	51-79-6	1.00E+00	1.00	1.00	1					

Table – 8.1 (continued)
Inhalation Cancer Potency (CP), Reference Exposure Level (REL) and Multi Pathway Adjustment Factors (MP)

		Cancer				Chronic			8hr Chronic	Acute
Toxic Air Contaminant	**CAS No**	**Cancer Potency Factor (mg/kg-dy)$^{-1}$**	**MP$_R$**	**MP$_W$**	**MWAF[1]**	**REL µg/m^3**	**MP$_R$**	**MP$_W$**	**REL (µg/m^3)**	**REL (µg/m^3)**
Vanadium (Fume or Dust)	7440-62-2				1					3.00E+01
Vanadium Pentoxide	1314-62-1				1					3.00E+01
Vinyl Acetate	108-05-4				1	2.00E+02	1.00	1.00		
Vinyl Chloride (Chloroethylene)	75-01-4	2.70E-01	1.00	1.00	1					1.80E+05
Vinylidene Chloride (1,1-Dichloroethylene)	75-35-4				1	7.00E+01	1.00	1.00		
Xylenes (Mixed Isomers)	1330-20-7				1	7.00E+02	1.00	1.00		2.20E+04
m-Xylene	108-38-3				1	7.00E+02	1.00	1.00		2.20E+04
o-Xylene	95-47-6				1	7.00E+02	1.00	1.00		2.20E+04
p-Xylene	106-42-3				1	7.00E+02	1.00	1.00		2.20E+04

CP – cancer potency factor
MP$_R$ – multi-pathway factor (residential)
MP$_W$ - multi-pathway factor (work)
MWAF – molecular weight adjustment factor
REL – Reference Exposure Level

1. *Molecular Weight Adjustment Factor: MWAFs are to be used for calculating cancer risks, chronic, chronic 8-hour, and acute hazard indices. For most of the Hot Spots toxic metals, the OEHHA cancer potency factor applies to the weight of the toxic metal atom contained in the overall compound. This ensures that the cancer potency factor is applied only to the fraction of the overall weight of the emissions that are associated with health effects of the metal.*
   So, for example, assume 100 pounds of "Nickel hydroxide" emissions are reported under CAS number 12054-48-7. To get the Nickel atom equivalent of these emissions, multiply by the listed MWAF (0.6332) for Nickel hydroxide: 100 pounds x 0.6332 = 63.32 pounds of Nickel atom equivalent
2. *The value listed in the MWAF column for Asbestos is not a molecular weight adjustment. This is a conversion factor for adjusting mass to fibers or structures. See Appendix C of OEHHA's document The Air Toxics Hot Spots Program Risk Assessment Guidelines for more information.*
3. *ARB removed methyl mercury from the July 3, 2014 Table 1 - Consolidated Table Of OEHHA/ARB Approved Risk Assessment Health Values because it has different chemical properties, potency, and toxicity compared to elemental mercury and mercury salts, and it is not emitted directly from any California facilities.*

Table 9.1
Residential Combined Exposure Factor (CEF)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (350 days/year)	CEF_R
-0.25 to 0	361	10	0.25	1	0.96	676.63
0 to 2	1,090	10	2	1	0.96	
2 to 16	572	3	14	1	0.96	
16 to 30	261	1	14	0.73	0.96	

Table 9.2
Worker Combined Exposure Factor (CEF)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (250 days/year)	CEF_W
16 - 41	230	1	25	0.68	56.26

Table 10.1
Worker Adjustment Factor (WAF)
Operating 12 Hours Per Day or Less

Hours of Operation Per Day	Days of Operation Per Week						
	1	2	3	4	5	6	7
1	4.2	4.2	4.2	4.2	4.2	3.5	3.0
2	4.2	4.2	4.2	4.2	4.2	3.5	3.0
3	4.2	4.2	4.2	4.2	4.2	3.5	3.0
4	4.2	4.2	4.2	4.2	4.2	3.5	3.0
5	4.2	4.2	4.2	4.2	4.2	3.5	3.0
6	4.2	4.2	4.2	4.2	4.2	3.5	3.0
7	4.2	4.2	4.2	4.2	4.2	3.5	3.0
8	4.2	4.2	4.2	4.2	4.2	3.5	3.0
9	3.7	3.7	3.7	3.7	3.7	3.1	2.7
10	3.4	3.4	3.4	3.4	3.4	2.8	2.4
11	3.1	3.1	3.1	3.1	3.1	2.5	2.2
12	2.8	2.8	2.8	2.8	2.8	2.3	2.0

Note: The WAF value for residential/sensitive receptors is 1.0, which assumes exposure of 24 hours/day, 7 days/week

Table 10.2
Worker Adjustment Factor (WAF)
Operating More Than 12 Hours Per Day

Hours of Operation Per Day	Days of Operation Per Week						
	1	2	3	4	5	6	7
13	2.6	2.6	2.6	2.6	2.6	2.2	1.8
14	2.4	2.4	2.4	2.4	2.4	2	1.7
15	2.2	2.2	2.2	2.2	2.2	1.9	1.6
16	2.1	2.1	2.1	2.1	2.1	1.8	1.5
17	2.0	2.0	2.0	2.0	2.0	1.6	1.4
18	1.9	1.9	1.9	1.9	1.9	1.6	1.3
19	1.8	1.8	1.8	1.8	1.8	1.5	1.3
20	1.7	1.7	1.7	1.7	1.7	1.4	1.2
21	1.6	1.6	1.6	1.6	1.6	1.3	1.1
22	1.5	1.5	1.5	1.5	1.5	1.3	1.1
23	1.5	1.5	1.5	1.5	1.5	1.2	1.0
24	1.4	1.4	1.4	1.4	1.4	1.2	1.0

Note: The WAF value for residential/sensitive receptors is 1.0, which assumes exposure of 24 hours/day, 7 days/week

Table – 11.1
Target Organs Affected by Toxic Air Contaminants (Chronic Toxicity)

Toxic Air Contaminant	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Acetaldehyde												X	
Acrolein												X	
Acrylonitrile												X	
Ammonia												X	
Arsenic & Compounds (Inorganic)[TAC]			X	X						X	X	X	X
Arsine			X	X						X	X	X	X
Benzene[TAC]							X						
Beryllium & Compounds	X							X				X	
1,3-Butadiene[TAC]				X							X		
Cadmium & Compounds[TAC]									X			X	
Caprolactam												X	
Carbon Disulfide				X						X	X		
Carbon Tetrachloride[TAC] (Tetrachloromethane)	X			X						X	X		
Chlorine												X	
Chlorine Dioxide												X	
Chlorobenzene	X			X					X		X		
Chloroform[TAC]	X			X					X		X		
Chloropicrin												X	
Chromium 6+[TAC]							X					X	
Barium Chromate							X					X	
Calcium Chromate							X					X	
Lead Chromate							X					X	
Sodium Dichromate							X					X	
Strontium Chromate							X					X	
Chromium Trioxide (As Chromic Acid Mist)							X					X	
Cresols (Mixtures Of)										X			
m-Cresol										X			
o-Cresol										X			
p-Cresol										X			
Hydrogen Cyanide (Hydrocyanic Acid)			X		X					X			
P-Dichlorobenzene	X								X	X		X	
1,1,-Dichloroethylene … (See Vinylidene Chloride)													

Table – 11.1 (continued)
Target Organs Affected by Toxic Air Contaminants (Chronic Toxicity)

Toxic Air Contaminant	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Diesel Exhaust … (See Particulate Emissions From Diesel-Fueled Engines)													
Diethanolamine							X					X	
N,N-Dimethyl Formamide	X											X	
1,4-Dioxane (1,4-Diethylene Dioxide)	X		X						X				
Epichlorohydrin (1-Chloro-2,3-Epoxypropane)						X						X	
1,2-Epoxybutane			X									X	
Ethyl Benzene	X			X	X				X		X		
Ethyl Chloride (Chlorethane)	X			X							X		
Ethylene Dibromide[TAC] (1,2-Dibromoethane)				X							X		
Ethylene Dichloride[TAC] (1,2-Dichloroethane)	X												
Ethylene Glycol				X					X		X	X	
Ethylene Oxide[TAC] (1,2-Epoxyethane)										X			
Fluorides		X										X	
Hydrogen Fluoride (Hydrofluoric Acid)		X										X	
Formaldehyde[TAC]												X	
Glutaraldehyde												X	
Glycol Ethers													
Ethylene Glycol Ethyl Ether - (EGEE)				X			X				X		
Ethylene Glycol Ethyl Ether Acetate (EGEEA)				X							X		
Ethylene Glycol Methyl Ether - (EGME)				X							X		
Ethylene Glycol Methyl Ether Acetate (EGMEA)				X							X		
N-Hexane										X			
Hydrazine	X				X								
Hydrochloric Acid (Hydrogen Chloride)												X	
Hydrogen Cyanide (Hydrocyanic Acid) (See Cyanide Compounds)													
Hydrogen Bromide ... (See Bromine & Compounds)													
Hydrogen Fluoride (Hydrofluoric Acid) (See Fluorides & Compounds)													

Table – 11.1 (continued)
Target Organs Affected by Toxic Air Contaminants (Chronic Toxicity)

Toxic Air Contaminant	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Hydrogen Sulfide												X	
Isophorone	X			X							X		
Isopropyl Alcohol (Isopropanol)				X					X		X		
Lindane ... (See Gamma-Hexachlorocyclohexane)													
Maleic Anhydride												X	
Manganese & Compounds										X			
Mercury & Inorganic Compounds				X					X	X	X		
Mercuric Chloride				X					X	X	X		
Methanol				X							X		
Methyl Bromide (Bromomethane)				X						X	X	X	
Methyl Tertiary-Butyl Ether	X					X			X				
Methyl Chloroform (1,1,1-Trichloroethane)										X			
Methyl Isocyanate				X							X	X	
Methylene Chloride[TAC] (Dichloromethane)			X							X			
4,4'-Methylene Dianiline (& Its Dichloride)	X					X							
Methylene Diphenyl Isocyanate												X	
Naphthalene												X	
Nickel & Compounds[TAC]				X			X				X	X	
Nickel Acetate				X			X				X	X	
Nickel Carbonate				X			X				X	X	
Nickel Carbonyl				X			X				X	X	
Nickel Hydroxide				X			X				X	X	
Nickelocene				X			X				X	X	
Nickel Oxide				X							X	X	
Nickel Refinery Dust From Pyrometallurgical Process				X			X				X	X	
Nickel Subsulfide				X			X				X	X	
Particulate Emissions From Diesel-Fueled Engines[TAC, E]												X	
Perchloroethylene[TAC] (Tetrachloroethylene)	X								X				
Phenol	X		X						X	X			
Phosphine	X						X		X	X		X	
Phosphoric Acid												X	

Table – 11.1 (continued)
Target Organs Affected by Toxic Air Contaminants (Chronic Toxicity)

Toxic Air Contaminant	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Phthalic Anhydride												X	
Dioxin-Like Polychlorinated Biphenyls (PCBS)[F, G]													
3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	X			X	X		X				X	X	
3,4,4',5-Tetrachlorobiphenyl (PCB 81)	X			X	X		X				X	X	
2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	X			X	X		X				X	X	
2,3,4,4',5-Pentachlorobiphenyl (PCB 114)	X			X	X		X				X	X	
2,3',4,4',5-Pentachlorobiphenyl (PCB 118)	X			X	X		X				X	X	
2,3',4,4',5'-Pentachlorobiphenyl (PCB 123)	X			X	X		X				X	X	
3,3',4,4',5-Pentachlorobiphenyl (PCB 126)	X			X	X		X				X	X	
2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	X			X	X		X				X	X	
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	X			X	X		X				X	X	
2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	X			X	X		X				X	X	
3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	X			X	X		X				X	X	
2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	X			X	X		X				X	X	
Polychlorinated Dibenzo-P-Dioxins (PCDD) (Treated As 2,3,7,8-TCDD for HRA)[TAC, F]	X			X	X		X				X	X	
2,3,7,8-Tetrachlorodibenzo-P-Dioxin[TAC]	X			X	X		X				X	X	
1,2,3,7,8-Pentachlorodibenzo-P-Dioxin	X			X	X		X				X	X	
1,2,3,4,7,8-Hexachlorodibenzo-P-Dioxin	X			X	X		X				X	X	
1,2,3,6,7,8-Hexachlorodibenzo-P-Dioxin	X			X	X		X				X	X	
1,2,3,7,8,9-Hexachlorodibenzo-P-Dioxin	X			X	X		X				X	X	
1,2,3,4,6,7,8-Heptachlorodibenzo-P-Dioxin	X			X	X		X				X	X	
1,2,3,4,6,7,8,9-Octachlorodibenzo-P-Dioxin	X			X	X		X				X	X	
Polychlorinated Dibenzofurans (PCDF) (Treated As 2,3,7,8-TCDD for HRA)[TAC, F]	X			X	X		X				X	X	
2,3,7,8-Tetrachlorodibenzofuran	X			X	X		X				X	X	
1,2,3,7,8-Pentachlorodibenzofuran	X			X	X		X				X	X	

Table – 11.1 (continued)
Target Organs Affected by Toxic Air Contaminants (Chronic Toxicity)

Toxic Air Contaminant	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
2,3,4,7,8-Pentachlorodibenzofurn	X			X	X		X				X	X	
1,2,3,4,7,8-Hexachlorodibenzofuran	X			X	X		X				X	X	
1,2,3,6,7,8-Hexachlorodibenzofuran	X			X	X		X				X	X	
1,2,3,7,8,9-Hexachlorodibenzofuran	X			X	X		X				X	X	
2,3,4,6,7,8-Hexachlorodibenzofuran	X			X	X		X				X	X	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	X			X	X		X				X	X	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	X			X	X		X				X	X	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	X			X	X		X				X	X	
Potassium Bromate ... (See Bromine & Compounds)													
Propylene (Propene)												X	
Propylene Glycol Monomethyl Ether	X												
Propylene Oxide												X	
Selenium & Compounds (Other Than Hydrogen H Selenide)	X		X							X			
Selenium Sulfide	X		X							X			
Styrene										X			
Sulfuric Acid												X	
Sulfuric Trioxide												X	
Toluene				X						X	X	X	
Toluene Diisocyanates												X	
Toluene-2,4-Diisocyanate												X	
Toluene-2,6-Diisocyanate												X	
Trichloroethylenetac						X				X			
Triethylamine						X							
Vinyl Acetate												X	
Vinylidene Chloride (1,1,-Dichloroethylene)	X												
Xylenes (Mixed Isomers)						X				X		X	
m-Xylene						X				X		X	
o-Xylene						X				X		X	
p-Xylene						X				X		X	

Table – 11.1 (continued)
Target Organs Affected by Toxic Air Contaminants (Chronic Toxicity)

AL: Alimentary system (liver)
BN: Bones and teeth
CV: Cardiovascular system
DEV: Developmental
END: Endocrine system
EYE: Eye
HEM: Hematopoietic system
IMM: Immune system
KID: Kidney
NS: Nervous system
REP: Reproductive system
RESP: Respiratory system
SKIN: Skin

Table – 11.2
Target Organs Affected by Toxic Air Contaminants (Acute Toxicity)

Toxic Air Contaminant	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Acetaldehyde				X					X	
Acrolein				X					X	
Acrylic Acid				X					X	
Ammonia				X					X	
Arsenic & Compounds (Inorganic)[TAC]		X	X				X	X		
Arsine		X	X				X	X		
Benzene[TAC]			X		X	X		X		
Benzyl Chloride				X					X	
1,3-Butadiene[TAC]			X					X		
Caprolactam				X						
Carbon Disulfide			X				X	X		
Carbon Tetrachloride[TAC] (Tetrachloromethane)	X		X				X	X		
Chlorine				X					X	
Chloroform[TAC]			X				X	X	X	
Chloropicrin				X					X	
Copper & Compounds									X	
Hydrogen Cyanide (Hydrocyanic Acid)							X			
1,4-Dioxane (1,4-Diethylene Dioxide)				X					X	
Epichlorohydrin (1-Chloro-2,3-Epoxypropane)				X					X	
Fluorides & Compounds				X					X	
Hydrogen Fluoride (Hydrofluoric Acid)				X					X	
Formaldehyde[TAC]				X						
Glycol Ethers										
Ethylene Glycol Butyl Ether – (EGBE)				X					X	
Ethylene Glycol Ethyl Ether – (EGEE)			X					X		
Ethylene Glycol Ethyl Ether Acetate - (EGEEA)			X				X	X		
Ethylene Glycol Methyl Ether – (EGME)			X					X		
Hydrochloric Acid (Hydrogen Chloride)				X					X	
Hydrogen Cyanide (Hydrocyanic Acid) (See Cyanide Compounds)										
Hydrogen Fluoride (Hydrofluoric Acid) (See Fluorides & Compounds)										
Hydrogen Selenide (See Selenium & Compounds)										

Table – 11.2 (continued)
Target Organs Affected by Toxic Air Contaminants (Acute Toxicity)

Toxic Air Contaminant	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Hydrogen Sulfide							X			
Isopropyl Alcohol (Isopropanol)				X					X	
Mercury & Compounds (Inorganic)			X				X	X		
Mercuric Chloride			X				X	X		
Methanol							X			
Methyl Bromide (Bromomethane)			X				X	X	X	
Methyl Chloroform (1,1,1-Trichloroethane)							X			
Methyl Ethyl Ketone (2-Butanone)				X					X	
Methylene Chloride[TAC] (Dichloromethane)		X					X			
Nickel & Compounds[TAC]						X				
Nickel Acetate						X				
Nickel Carbonate						X				
Nickel Carbonyl						X				
Nickel Hydroxide						X				
Nickelocene						X				
Nickel Oxide						X				
Nickel Refinery Dust From The Pyrometallurgical Process						X				
Nickel Subsulfide						X				
Nitric Acid									X	
Perchloroethylene[TAC] (Tetrachloroethylene)				X			X		X	
Phenol				X					X	
Phosgene									X	
Propylene Oxide			X	X				X	X	
Selenium & Compounds										
Hydrogen Selenide				X					X	
Sodium Hydroxide				X					X	X
Styrene			X	X				X	X	
Sulfuric Acid									X	
Sulfur Trioxide									X	
Oleum									X	
Toluene			X	X			X	X	X	
Triethylamine				X			X			

Table – 11.2 (continued)
Target Organs Affected by Toxic Air Contaminants (Acute Toxicity)

Toxic Air Contaminant	AL	CV	DEV	EYE	HEM	IMM	NS	REP	RESP	SKIN
Vanadium Compounds										
Vanadium (Fume Or Dust)				X					X	
Vanadium Pentoxide				X					X	
Vinyl Chloridetac (Chloroethylene)				X			X		X	
Xylenes (Mixed Isomers)				X			X		X	
m-Xylene				X			X		X	
o-Xylene				X			X		X	
p-Xylene				X			X		X	

AL: Alimentary system (liver)
CV: Cardiovascular system
DEV: Developmental
EYE: Eye
HEM: Hematopoietic system
IMM: Immune system
NS: Nervous system
REP: Reproductive system
RESP: Respiratory system
SKIN: Skin

Table – 11.3
Target Organs Affected by Toxic Air Contaminants (8-hour Toxicity)

Toxic Air Contaminant	AL	BN	CV	DEV	END	EYE	HEM	IMM	KID	NS	REP	RESP	SKIN
Acetaldehyde												X	
Acrolein												X	
Arsenic And Compounds (Inorganic)[TAC]			X	X						X	X	X	X
Arsine			X	X						X	X	X	X
Benzene[TAC]							X						
1,3-Butadienetac				X							X		
Caprolactam												X	
Formaldehyde[TAC]												X	
Manganese And Compounds										X			
Mercury And Compounds (Inorganic)				X					X	X	X		
Mercuric Chloride				X					X	X	X		
Nickel And Compounds[TAC]								X				X	
Nickel Acetate								X				X	
Nickel Carbonate								X				X	
Nickel Carbonyl								X				X	
Nickel Hydroxide								X				X	
Nickelocene								X				X	
Nickel Oxide								X				X	
Nickel Refinery Dust From The Pyrometallurgical Process								X				X	
Nickel Subsulfide								X				X	

AL: Alimentary system (liver)
CV: Cardiovascular system
DEV: Developmental
EYE: Eye
HEM: Hematopoietic system
IMM: Immune system
NS: Nervous system
REP: Reproductive system
RESP: Respiratory system
SKIN: Skin

Table – 12.1
Meteorological Monitoring Stations in the South Coast Air Basin

Station name	UTM Coordinates (km)		Lat./Long. Coordinates		Elevation
	Easting	Northing	Latitude	Longitude	(m)
Anaheim	413.14	3743.57	33:49:50	117:56:19	41
Azusa	414.81	3777.47	34:08:11	117:55:26	182
Banning	513.10	3753.19	33:55:15	116:51:30	660
Burbank	378.62	3782.24	34:10:33	118:19:01	175
Central LA	386.79	3770.00	34:03:59	118:13:36	87
Compton	388.59	3751.88	33:54:05	118:12:18	22
Costa Mesa	414.16	3726.19	33:40:26	117:55:33	20
Crestline	474.62	3788.76	34:14:29	117:16:32	1387
Fontana	454.62	3773.19	34:06:01	117:29:31	367
Indio	572.67	3729.90	33:42:30	116:12:57	-4
La Habra	411.98	3754.08	33:55:31	117:57:08	82
Lake Elsinore	469.33	3726.13	33:40:35	117:19:51	406
LAX	367.83	3757.80	33:57:15	118:25:49	42
Long Beach	389.99	3743.04	33:49:25	118:11:19	30
Lynwood	388.07	3754.73	33:55:44	118:12:39	29
Mission Viejo	437.39	3721.17	33:37:49	117:40:30	170
Palm Springs	542.46	3745.73	33:51:10	116:32:28	171
Perris	478.91	3738.58	33:47:20	117:13:40	442
Pico Rivera	401.31	3763.61	34:00:37	118:04:07	58
Pomona	430.78	3769.61	34:04:00	117:45:00	270
Redlands	486.36	3768.50	34:03:32	117:08:52	481
Reseda	358.76	3785.11	34:11:57	118:31:58	228
Riverside	461.64	3762.10	34:00:02	117:24:55	250
San Bernardino	474.76	3773.82	34:06:24	117:16:25	305
Santa Clarita	359.48	3805.52	34:23:00	118:31:42	375
Upland	441.96	3773.66	34:06:14	117:37:45	379
West LA	365.54	3768.52	34:03:02	118:27:24	97

Table - 12.2
Meteorological Stations for Each Source/Receptor Area

Meteorological Station	Source/ Receptor Area	Meteorological Station	Source/ Receptor Area
Anaheim	17	Compton/Lynwood	12
Azusa	8, 9	Mission Viejo	19, 21
Banning	29	Perris	24, 28
Burbank	7	Palm Springs	30, 31
Central LA	1	Pico Rivera	5, 11
Crestline	37	Pomona	10
Costa Mesa	18, 20	Redlands	35, 38
Fontana	34	Reseda	6
Indio	30	Riverside	22, 23
La Habra	16	Santa Clarita	13, 15
Lake Elsinore	25, 26, 27	San Bernardino	34
LAX	3	Upland	32, 33, 36
Long Beach	4	West LA	2

Figure 1
Meteorological Monitoring Stations in the South Coast Air Basin

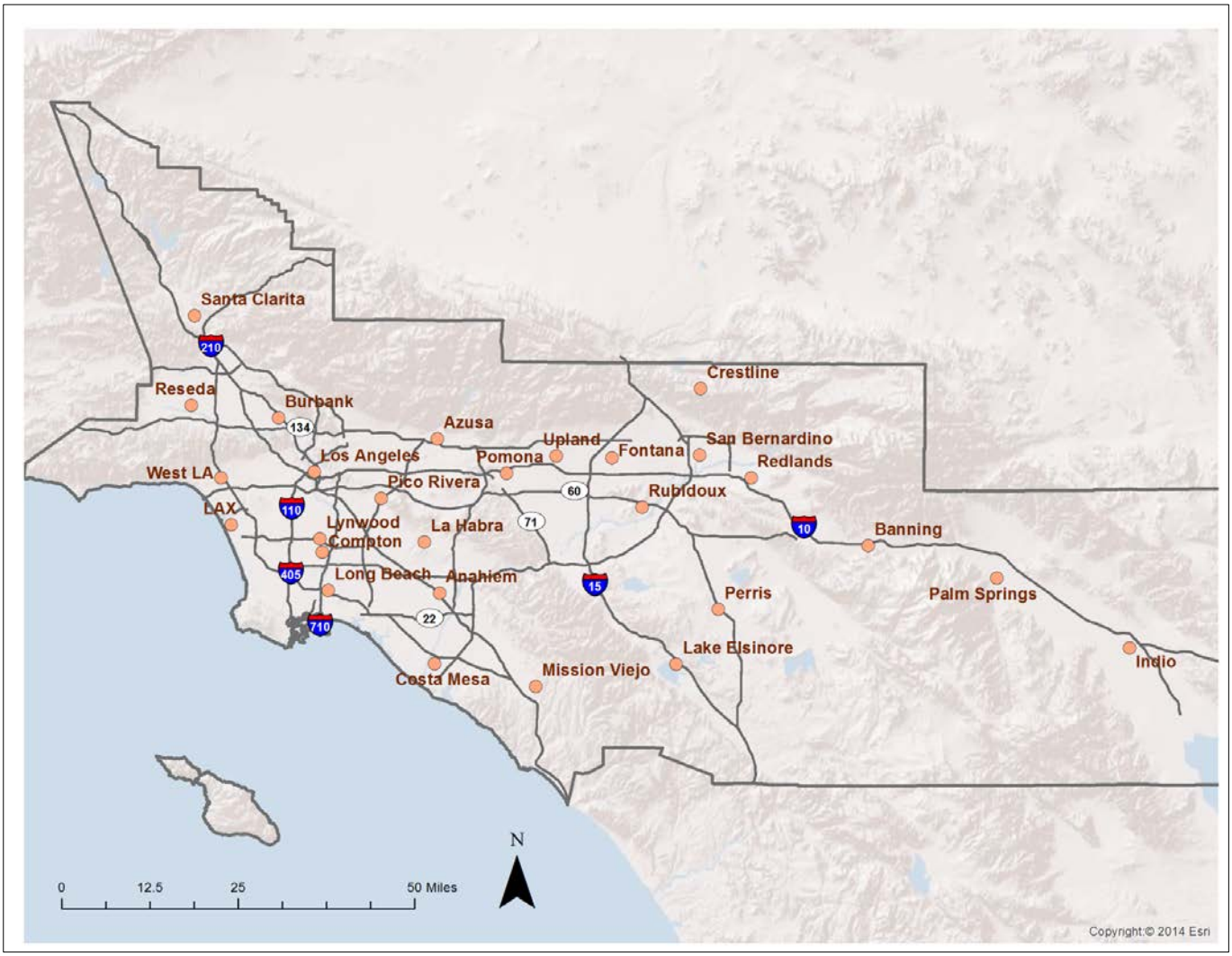

Figure 2
Source/Receptor Areas