

APPENDIX B-3

SUMMARIES OF TOXIC POLLUTANTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
TOXIC AIR CONTAMINANTS
1999 ANNUAL REPORT
DEC 2000

SUMMARY OF TOXIC POLLUTANTS

SORTED BY POLLUTANT

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Acetaldehyde	72	56	12	110000
Acrolein	3.9	4	2	300
Acrylic acid	190	2	0	7
Acrylonitrile	.67	2	2	54
Allyl chloride	193	3	0	120
Ammonia (NH3) pollutant	19300	77	18	3100000
Arsenic (all)	.024	243	27	22
Asbestos pollutant	.003	2	0	.000
Benzene	6.7	1207	161	63000
Benzyl chloride	2320	4	0	1300
Beryllium (all) pollutant	.015	239	20	2.000
Butadiene, 1,3-	1.1	10	8	12000
Butyl cellosolve	3860	528	10	290000
Cadmium	.046	246	25	57
Carbon tetrachloride	4.6	41	4	3100
Cellosolve	38600	81	1	130000
Cellosolve acetate	12400	63	0	20000
Chlorinated dioxins & furans	.000012	12	11	.0005800
Chlorine pollutant	1370	6	1	2000
Chlorobenzene	13500	9	0	2700
Chlorobenzene - other/not spec	13500	10	0	3400
Chloroform	36	97	43	21000
Chromium (hexavalent)	.0014	268	44	8.3000
Copper (all) pollutant	463	11	0	350
Cresol	34700	11	0	3400
Dichlorobenzene	68	34	5	1700
Dioxane, 1,4-	25	107	14	1700
Epiclorohydrin	8.3	4	0	6.9
Ethyl acrylate	9260	5	0	190
Ethyl benzene	190000	217	0	27000
Ethyl chloride	1930000	29	0	1300
Ethylene dibromide	2.7	33	2	290
Ethylene dichloride	9.7	72	22	1600
Ethylene oxide	2.1	44	2	39
Formaldehyde	33	480	87	180000
Glycol ether - other/not spec	3860	188	4	150000
Hexachlorobenzene	.39	1	0	.00
Hexachlorocyclopentadiene	46.3	1	0	.0
Hexane	39000	91	3	390000
Hydrochloric acid mist pollutant	1350	90	3	27000
Hydrogen Chloride (HCl)	1350	17	4	110000
Hydrogen Fluoride (HF)	1140	6	0	730
Hydrogen Sulfide (H2S)	8110	59	3	150000
Isophorone	390000	7	0	310
Lead (all) pollutant	29	250	4	2000
Manganese	77	247	5	1400
Mercury (all) pollutant	57.9	242	3	490
Methyl alcohol	120000	401	2	610000
Methyl bromide	1160	2	0	21
Methyl cellosolve	3860	18	0	1300
Methyl methacrylate	189000	4	0	510
Methylene chloride	190	154	66	110000
Naphthalene	270	5	0	22
Nickel pollutant	.73	248	34	700
PAH's (benzo[a]pyrene equiv)	.043	8	7	510
Perchloroethylene	33	1006	947	820000
Phenol	8690	33	1	21000
Phosphine	1930	1	0	110
Phthalic anhydride	1350000	3	0	22
Polychlorinated biphenyl (PCB)	.007	7	7	12

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SUMMARY OF TOXIC POLLUTANTS

SORTED BY POLLUTANT (cont)

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Selenium	96.5	4	2	390
Styrene	135000	89	0	260000
Toluene	38600	977	2	740000
Trichloroethane, 1,1,1- (w/o)	61800	109	0	130000
Trichloroethane, 1,1,1- (with)	61800	100	0	28000
Trichloroethane, 1,1,2-	12	1	1	3700
Trichloroethylene	97	145	53	48000
Vinyl chloride	2.5	50	38	9600
Vinylidene chloride	6180	38	0	340
Xylene	57900	1155	3	610000
Zinc pollutant	6760	12	0	3700
71 pollutants				8204400

number of toxic pollutants tracked in BAAQMD: 111
 number of toxic pollutants reported in BAAQMD: 71
 number of toxic pollutants reported > trigger: 43

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
TOXIC AIR CONTAMINANTS
1999 ANNUAL REPORT
DEC 2000

SUMMARY OF TOXIC POLLUTANTS

SORTED BY EMISSION

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Ammonia (NH3) pollutant	19300	77	18	3100000
Perchloroethylene	33	1006	947	820000
Toluene	38600	977	2	740000
Methyl alcohol	120000	401	2	610000
Xylene	57900	1155	3	610000
Hexane	39000	91	3	390000
Butyl cellosolve	3860	528	10	290000
Styrene	135000	89	0	260000
Formaldehyde	33	480	87	180000
Glycol ether - other/not spec	3860	188	4	150000
Hydrogen Sulfide (H2S)	8110	59	3	150000
Trichloroethane, 1,1,1- (w/o)	61800	109	0	130000
Cellosolve	38600	81	1	130000
Hydrogen Chloride (HCl)	1350	17	4	110000
Methylene chloride	190	154	66	110000
Acetaldehyde	72	56	12	110000
Benzene	6.7	1207	161	63000
Trichloroethylene	97	145	53	48000
Trichloroethane, 1,1,1- (with)	61800	100	0	28000
Ethyl benzene	190000	217	0	27000
Hydrochloric acid mist pollutant	1350	90	3	27000
Chloroform	36	97	43	21000
Phenol	8690	33	1	21000
Cellosolve acetate	12400	63	0	20000
Butadiene, 1,3-	1.1	10	8	12000
Vinyl chloride	2.5	50	38	9600
Trichloroethane, 1,1,2-	12	1	1	3700
Zinc pollutant	6760	12	0	3700
Chlorobenzene - other/not spec	13500	10	0	3400
Cresol	34700	11	0	3400
Carbon tetrachloride	4.6	41	4	3100
Chlorobenzene	13500	9	0	2700
Lead (all) pollutant	29	250	4	2000
Chlorine pollutant	1370	6	1	2000
Dioxane, 1,4-	25	107	14	1700
Dichlorobenzene	68	34	5	1700
Ethylene dichloride	9.7	72	22	1600
Manganese	77	247	5	1400
Ethyl chloride	1930000	29	0	1300
Methyl cellosolve	3860	18	0	1300
Benzyl chloride	2320	4	0	1300
Hydrogen Fluoride (HF)	1140	6	0	730
Nickel pollutant	.73	248	34	700
PAH's (benzo[a]pyrene equiv)	.043	8	7	510
Methyl methacrylate	189000	4	0	510
Mercury (all) pollutant	57.9	242	3	490
Selenium	96.5	4	2	390
Copper (all) pollutant	463	11	0	350
Vinylidene chloride	6180	38	0	340
Isophorone	390000	7	0	310
Acrolein	3.9	4	2	300
Ethylene dibromide	2.7	33	2	290
Ethyl acrylate	9260	5	0	190
Allyl chloride	193	3	0	120
Phosphine	1930	1	0	110
Cadmium	.046	246	25	57
Acrylonitrile	.67	2	2	54
Ethylene oxide	2.1	44	2	39
Arsenic (all)	.024	243	27	22
Phthalic anhydride	1350000	3	0	22

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SUMMARY OF TOXIC POLLUTANTS

SORTED BY EMISSION (cont)

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Naphthalene	270	5	0	22
Methyl bromide	1160	2	0	21
Polychlorinated biphenyl (PCB)	.007	7	7	12
Chromium (hexavalent)	.0014	268	44	8.3000
Acrylic acid	190	2	0	7
Epichlorohydrin	8.3	4	0	6.9
Beryllium (all) pollutant	.015	239	20	2.000
Hexachlorobenzene	.39	1	0	.00
Chlorinated dioxins & furans	.000012	12	11	.0005800
Asbestos pollutant	.003	2	0	.000
Hexachlorocyclopentadiene	46.3	1	0	.0
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71 pollutants				8204400

number of toxic pollutants tracked in BAAQMD: 111
 number of toxic pollutants reported in BAAQMD: 71
 number of toxic pollutants reported > trigger: 43

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TOXIC AIR CONTAMINANTS
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SUMMARY OF TOXIC POLLUTANTS

SORTED BY OCCURRENCES

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Benzene	6.7	1207	161	63000
Xylene	57900	1155	3	610000
Perchloroethylene	33	1006	947	820000
Toluene	38600	977	2	740000
Butyl cellosolve	3860	528	10	290000
Formaldehyde	33	480	87	180000
Methyl alcohol	120000	401	2	610000
Chromium (hexavalent)	.0014	268	44	8.3000
Lead (all) pollutant	.29	250	4	2000
Nickel pollutant	.73	248	34	700
Manganese	.77	247	5	1400
Cadmium	.046	246	25	57
Arsenic (all)	.024	243	27	22
Mercury (all) pollutant	57.9	242	3	490
Beryllium (all) pollutant	.015	239	20	2.000
Ethyl benzene	190000	217	0	27000
Glycol ether - other/not spec	3860	188	4	150000
Methylene chloride	190	154	66	110000
Trichloroethylene	97	145	53	48000
Trichloroethane, 1,1,1- (w/o)	61800	109	0	130000
Dioxane, 1,4-	25	107	14	1700
Trichloroethane, 1,1,1- (with)	61800	100	0	28000
Chloroform	36	97	43	21000
Hexane	39000	91	3	390000
Hydrochloric acid mist pollutant	1350	90	3	27000
Styrene	135000	89	0	260000
Cellosolve	38600	81	1	130000
Ammonia (NH3) pollutant	19300	77	18	310000
Ethylene dichloride	9.7	72	22	1600
Cellosolve acetate	12400	63	0	20000
Hydrogen Sulfide (H2S)	8110	59	3	150000
Acetaldehyde	72	56	12	110000
Vinyl chloride	2.5	50	38	9600
Ethylene oxide	2.1	44	2	39
Carbon tetrachloride	4.6	41	4	3100
Vinylidene chloride	6180	38	0	340
Dichlorobenzene	68	34	5	1700
Ethylene dibromide	2.7	33	2	290
Phenol	8690	33	1	21000
Ethyl chloride	1930000	29	0	1300
Methyl cellosolve	3860	18	0	1300
Hydrogen Chloride (HCl)	1350	17	4	110000
Chlorinated dioxins & furans	.000012	12	11	.0005800
Zinc pollutant	6760	12	0	3700
Copper (all) pollutant	463	11	0	350
Cresol	34700	11	0	3400
Butadiene, 1,3-	1.1	10	8	12000
Chlorobenzene - other/not spec	13500	10	0	3400
Chlorobenzene	13500	9	0	2700
PAH's (benzo[a]pyrene equiv)	.043	8	7	510
Isophorone	390000	7	0	310
Polychlorinated biphenyl (PCB)	.007	7	7	12
Chlorine pollutant	1370	6	1	2000
Hydrogen Fluoride (HF)	1140	6	0	730
Ethyl acrylate	9260	5	0	190
Naphthalene	270	5	0	22
Acrolein	3.9	4	2	300
Benzyl chloride	2320	4	0	1300
Ethyl chlorohydrin	8.3	4	0	6.9
Methyl methacrylate	189000	4	0	510

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SUMMARY OF TOXIC POLLUTANTS

SORTED BY OCCURRENCES (cont)

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Selenium	96.5	4	2	390
Allyl chloride	193	3	0	120
Phthalic anhydride	135000	3	0	22
Acrylic acid	190	2	0	7
Acrylonitrile	.67	2	2	54
Asbestos pollutant	.003	2	0	.000
Methyl bromide	1160	2	0	21
Trichloroethane, 1,1,2-	12	1	1	3700
Hexachlorobenzene	.39	1	0	.00
Hexachlorocyclopentadiene	46.3	1	0	.0
Phosphine	1930	1	0	110
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71 pollutants				8204400

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SUMMARY OF TOXIC POLLUTANTS
SORTED BY TRIGGER LEVEL

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Chlorinated dioxins & furans	.0000012	12	11	.0005800
Chromium (hexavalent)	.0014	268	44	8.3000
Asbestos pollutant	.003	2	0	.000
Polychlorinated biphenyl (PCB)	.007	7	7	12
Beryllium (all) pollutant	.015	239	20	2.000
Arsenic (all)	.024	243	27	22
PAH's (benzo[a]pyrene equiv)	.043	8	7	510
Cadmium	.046	246	25	57
Hexachlorobenzene	.39	1	0	.00
Acrylonitrile	.67	2	2	54
Nickel pollutant	.73	248	34	700
Butadiene, 1,3-	1.1	10	8	12000
Ethylene oxide	2.1	44	2	39
Vinyl chloride	2.5	50	38	9600
Ethylene dibromide	2.7	33	2	290
Acrolein	3.9	4	2	300
Carbon tetrachloride	4.6	41	4	3100
Benzene	6.7	1207	161	63000
Ethylchlorohydrin	8.3	4	0	6.9
Ethylene dichloride	9.7	72	22	1600
1,1,2-trichloro	12	1	1	3700
Dioxane, 1,4-	25	107	14	1700
Lead (all) pollutant	29	250	4	2000
Formaldehyde	33	480	87	180000
Perchloroethylene	33	1006	947	820000
Chloroform	36	97	43	21000
Hexachlorocyclopentadiene	46.3	1	0	.0
Mercury (all) pollutant	57.9	242	3	490
Dichlorobenzene	68	34	5	1700
Acetaldehyde	72	56	12	110000
Manganese	77	247	5	1400
Selenium	96.5	4	2	390
Trichloroethylene	97	145	53	48000
Acrylic acid	190	2	0	7
Methylene chloride	190	154	66	110000
Allyl chloride	193	3	0	120
Naphthalene	270	5	0	22
Copper (all) pollutant	463	11	0	350
Hydrogen Fluoride (HF)	1140	6	0	730
Methyl bromide	1160	2	0	21
Hydrochloric acid mist pollutant	1350	90	3	27000
Hydrogen Chloride (HCl)	1350	17	4	110000
Chlorine pollutant	1370	6	1	2000
Phosphine	1930	1	0	110
Benzyl chloride	2320	4	0	1300
Butyl cellosolve	3860	528	10	290000
Glycol ether - other/not spec	3860	188	4	150000
Methyl cellosolve	3860	18	0	1300
Vinylidene chloride	6180	38	0	340
Zinc pollutant	6760	12	0	3700
Hydrogen Sulphide (H2S)	8110	59	3	150000
Phenol	8690	33	1	21000
Ethyl acrylate	9260	5	0	190
Cellosolve acetate	12400	63	0	20000
Chlorobenzene	13500	9	0	2700
Chlorobenzene - other/not spec	13500	10	0	3400
Ammonia (NH3) pollutant	19300	77	18	3100000
Cresol	34700	11	0	3400
Cellosolve	38600	81	1	130000
Toluene	38600	977	2	740000

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SUMMARY OF TOXIC POLLUTANTS

SORTED BY TRIGGER LEVEL (cont)

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Hexane	39000	91	3	390000
Xylene	57900	1155	3	610000
Trichloroethane, 1,1,1- (w/o)	61800	109	0	130000
Trichloroethane, 1,1,1- (with)	61800	100	0	28000
Methyl alcohol	120000	401	2	610000
Styrene	135000	89	0	260000
Methyl methacrylate	189000	4	0	510
Ethyl benzene	190000	217	0	27000
Isophorone	390000	7	0	310
Phthalic anhydride	1350000	3	0	22
Ethyl chloride	1930000	29	0	1300
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71 pollutants				8204400

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT
TOXIC AIR CONTAMINANTS
1999 ANNUAL REPORT
DEC 2000

SUMMARY OF TOXIC POLLUTANTS

SORTED BY PLANTS ABOVE TRIGGER

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Perchloroethylene	33	1006	947	820000
Benzene	6.7	1207	161	63000
Formaldehyde	33	480	87	180000
Methylene chloride	190	154	66	110000
Trichloroethylene	97	145	53	48000
Chromium (hexavalent)	.0014	268	44	8.3000
Chloroform	36	97	43	21000
Vinyl chloride	2.5	50	38	9600
Nickel pollutant	.73	248	34	700
Arsenic (all)	.024	243	27	22
Cadmium	.046	246	25	57
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Hexane	39000	91	3	390000
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Mercury (all) pollutant	57.9	242	3	490
Xylene	57900	1155	3	610000
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Selenium	96.5	4	2	390
Toluene	38600	977	2	740000
1,1,2-trichloro	12	1	1	3700
Cellosolve	38600	81	1	130000
Chlorine pollutant	1370	6	1	2000
Phenol	8690	33	1	21000
Acrylic acid	190	2	0	7
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Asbestos pollutant	.003	2	0	.000
Benzyl chloride	2320	4	0	1300
Cellosolve acetate	12400	63	0	20000
Chlorobenzene	13500	9	0	2700
Chlorobenzene - other/not spec	13500	10	0	3400
Copper (all) pollutant	463	11	0	350
Cresol	34700	11	0	3400
Epichlorohydrin	8.3	4	0	6.9
Ethyl acrylate	9260	5	0	190
Ethyl benzene	190000	217	0	27000
Ethyl chloride	1930000	29	0	1300
Hexachlorobenzene	.39	1	0	.00
Hexachlorocyclopentadiene	46.3	1	0	.0
Hydrogen Fluoride (HF)	1140	6	0	730
Isophorone	390000	7	0	310

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 TOXIC AIR CONTAMINANTS
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SUMMARY OF TOXIC POLLUTANTS

SORTED BY PLANTS ABOVE TRIGGER (cont)

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Methyl bromide	1160	2	0	21
Methyl cellosolve	3860	18	0	1300
Methyl methacrylate	189000	4	0	510
Naphthalene	270	5	0	22
Phosphine	1930	1	0	110
Phthalic anhydride	1350000	3	0	22
Styrene	135000	89	0	260000
Trichloroethane, 1,1,1- (w/o)	61800	109	0	130000
Trichloroethane, 1,1,1- (with)	61800	100	0	28000
Vinylidene chloride	6180	38	0	340
Zinc pollutant	6760	12	0	3700
----- 71 pollutants				----- 8204400

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 number of toxic pollutants reported in BAAQMD: 71
 number of toxic pollutants reported > trigger: 43