

APPENDIX B-4

SUMMARIES OF TOXIC POLLUTANTS

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
 TOXIC AIR CONTAMINANTS
 2001 ANNUAL REPORT
 JULY 2003

SUMMARY OF TOXIC POLLUTANTS

SORTED BY POLLUTANT

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Acetaldehyde	72	90	13	56000
Acrolein	3.9	8	2	210
Acrylic acid	190	3	0	7
Acrylonitrile	.67	3	3	99
Allyl chloride	193	2	0	83
Ammonia (NH3) pollutant	19300	69	21	2800000
Arsenic (all)	.024	221	36	37
Asbestos pollutant	.003	2	0	.000
Benzene	6.7	1141	174	70000
Benzyl chloride	2320	3	0	960
Beryllium (all) pollutant	.015	220	17	1.200
Butadiene, 1,3-	1.1	9	6	4100
Butyl alcohol, tert-		4	4	1100
Butyl cellosolve	3860	445	9	300000
Cadmium	.046	227	26	50
Carbon tetrachloride	4.6	41	1	1900
Cellosolve	38600	70	1	110000
Cellosolve acetate	12400	53	0	7900
Chlorinated dioxins & furans (	.0000012	51	24	.0006800
Chlorine pollutant	1370	5	1	1900
Chlorobenzene	13500	10	0	6400
Chlorobenzene - other/not spec	13500	9	0	11000
Chloroform	36	93	37	17000
Chromium (hexavalent)	.0014	251	80	9.4000
Copper (all) pollutant	463	53	0	410
Cresol	34700	13	0	620
Dichlorobenzene	68	34	5	1400
Dioxane, 1,4-	25	74	9	1200
Epichlorohydrin	8.3	3	0	6.2
Ethyl acrylate	9260	6	0	93
Ethyl benzene	190000	224	0	33000
Ethyl chloride	1930000	29	0	1500
Ethylene dibromide	2.7	30	2	280
Ethylene dichloride	9.7	69	20	1000
Ethylene oxide	2.1	40	4	55
Formaldehyde	33	502	87	210000
Glycol ether - other/not spec	3860	161	4	67000
Hexachlorobenzene	.39	2	0	.03
Hexamethylene-1,6-diisocyanate	1.9	1	0	1.9
Hexane	39000	88	2	240000
Hydrochloric acid mist polluta	1350	78	3	20000
Hydrogen Chloride (HCl)	1350	61	13	180000
Hydrogen Fluoride (HF)	1140	45	0	1200
Hydrogen Sulfide (H2S)	8110	61	3	120000
Isophorone	390000	4	0	110
Lead (all) pollutant	29	231	2	480
Manganese	77	186	6	1200
Mercury (all) pollutant	57.9	221	3	610
Methyl alcohol	120000	362	1	390000
Methyl bromide	1160	2	0	0
Methyl cellosolve	3860	14	1	7200
Methyl methacrylate	189000	4	0	35
Methyl tertiary-butyl ether	580000	119	0	220000
Methylene chloride	190	149	66	98000
Naphthalene	270	7	0	160
Nickel pollutant	.73	233	38	730
PAH's (benzo[a]pyrene equiv)	.043	54	8	490
Perchloroethylene	33	882	816	610000
Phenol	8690	21	1	19000
Phosphine	1930	1	0	110
Phthalic anhydride	1350000	3	0	99

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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)
Polychlorinated biphenyl (PCB)	.007	8	7	3.000
Selenium	96.5	47	3	760
Styrene	135000	79	0	240000
Tetrachloroethane, 1,1,2,2-	3.3	1	0	.0
Toluene	38600	874	1	370000
Toluene diisocyanate (TDI)	18.3	5	1	300
Trichloroethane, 1,1,1- (w/o	61800	124	0	120000
Trichloroethane, 1,1,1- (with	61800	42	0	12000
Trichloroethylene	97	139	41	26000
Triethylamine	1400	1	0	130
Vinyl chloride	2.5	52	39	9300
Vinylidene chloride	6180	37	0	780
Xylene	57900	1034	2	410000
Zinc pollutant	6760	50	0	3300
----- 75 pollutants				----- 6766000

number of toxic pollutants tracked in BAAQMD: 113
 number of toxic pollutants reported in BAAQMD: 75
 number of toxic pollutants reported > cutoff: 45

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
 TOXIC AIR CONTAMINANTS
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SUMMARY OF TOXIC POLLUTANTS

SORTED BY EMISSIONS

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Ammonia (NH3) pollutant	19300	69	21	2800000
Perchloroethylene	33	882	816	610000
Xylene	57900	1034	2	410000
Methyl alcohol	120000	362	1	390000
Toluene	38600	874	1	370000
Butyl cellosolve	3860	445	9	300000
Styrene	135000	79	0	240000
Hexane	39000	88	2	240000
Methyl tertiary-butyl ether	580000	119	0	220000
Formaldehyde	33	502	87	210000
Hydrogen Chloride (HCl)	1350	61	13	180000
Hydrogen Sulfide (H2S)	8110	61	3	120000
Trichloroethane, 1,1,1- (w/o	61800	124	0	120000
Cellosolve	38600	70	1	110000
Methylene chloride	190	149	66	98000
Benzene	6.7	1141	174	70000
Glycol ether - other/not spec	3860	161	4	67000
Acetaldehyde	72	90	13	56000
Ethyl benzene	190000	224	0	33000
Trichloroethylene	97	139	41	26000
Hydrochloric acid mist polluta	1350	78	3	20000
Phenol	8690	21	1	19000
Chloroform	36	93	37	17000
Trichloroethane, 1,1,1- (with	61800	42	0	12000
Chlorobenzene - other/not spec	13500	9	0	11000
Vinyl chloride	2.5	52	39	9300
Cellosolve acetate	12400	53	0	7900
Methyl cellosolve	3860	14	1	7200
Chlorobenzene	13500	10	0	6400
Butadiene, 1,3-	1.1	9	6	4100
Zinc pollutant	6760	50	0	3300
Chlorine pollutant	1370	5	1	1900
Carbon tetrachloride	4.6	41	1	1900
Ethyl chloride	1930000	29	0	1500
Dichlorobenzene	68	34	5	1400
Dioxane, 1,4-	25	74	9	1200
Hydrogen Fluoride (HF)	1140	45	0	1200
Manganese	77	186	6	1200
Butyl alcohol, tert-		4	4	1100
Ethylene dichloride	9.7	69	20	1000
Benzyl chloride	2320	3	0	960
Vinylidene chloride	6180	37	0	780
Selenium	96.5	47	3	760
Nickel pollutant	.73	233	38	730
Cresol	34700	13	0	620
Mercury (all) pollutant	57.9	221	3	610
PAH's (benzo[a]pyrene equiv)	.043	54	8	490
Lead (all) pollutant	29	231	2	480
Copper (all) pollutant	463	53	0	410
Toluene diisocyanate (TDI)	18.3	5	1	300
Ethylene dibromide	2.7	30	2	280
Acrolein	3.9	8	2	210
Naphthalene	270	7	0	160
Triethylamine	1400	1	0	130
Isophorone	390000	4	0	110
Phosphine	1930	1	0	110
Acrylonitrile	.67	3	3	99
Phthalic anhydride	1350000	3	0	99
Ethyl acrylate	9260	6	0	93
Allyl chloride	193	2	0	83

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SUMMARY OF TOXIC POLLUTANTS
 SORTED BY EMISSIONS (cont)

Pollutant	Trigger Level (lbs/yr)	Total # Plants Emitting	# Plants Above Trigger	Total Emissions (lbs/yr)
Ethylene oxide	2.1	40	4	55
Cadmium	.046	227	26	50
Arsenic (all)	.024	221	36	37
Methyl methacrylate	189000	4	0	35
Chromium (hexavalent)	.0014	251	80	9.4000
Acrylic acid	190	3	0	7
Epichlorohydrin	8.3	3	0	6.2
Polychlorinated biphenyl (PCB)	.007	8	7	3.000
Hexamethylene-1,6-diisocyanate	1.9	1	0	1.9
Beryllium (all) pollutant	.015	220	17	1.200
Hexachlorobenzene	.39	2	0	.03
Tetrachloroethane, 1,1,2,2-	3.3	1	0	.0
Chlorinated dioxins & furans (.0000012	51	24	.0006800
Asbestos pollutant	.003	2	0	.000
Methyl bromide	1160	2	0	0
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75 pollutants				6766000

number of toxic pollutants tracked in BAAQMD: 113
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 number of toxic pollutants reported > cutoff: 45

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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	1141	174	70000
Xylene	57900	1034	2	410000
Perchloroethylene	33	882	816	610000
Toluene	38600	874	1	370000
Formaldehyde	33	502	87	210000
Butyl cellosolve	3860	445	9	300000
Methyl alcohol	120000	362	1	390000
Chromium (hexavalent)	.0014	251	80	9.4000
Nickel pollutant	.73	233	38	730
Lead (all) pollutant	29	231	2	480
Cadmium	.046	227	26	50
Ethyl benzene	190000	224	0	33000
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Mercury (all) pollutant	57.9	221	3	610
Beryllium (all) pollutant	.015	220	17	1.200
Manganese	77	186	6	1200
Glycol ether - other/not spec	3860	161	4	67000
Methylene chloride	190	149	66	98000
Trichloroethylene	97	139	41	26000
Trichloroethane, 1,1,1- (w/o	61800	124	0	120000
Methyl tertiary-butyl ether	580000	119	0	220000
Chloroform	36	93	37	17000
Acetaldehyde	72	90	13	56000
Hexane	39000	88	2	240000
Styrene	135000	79	0	240000
Hydrochloric acid mist polluta	1350	78	3	20000
Dioxane, 1,4-	25	74	9	1200
Cellosolve	38600	70	1	110000
Ammonia (NH3) pollutant	19300	69	21	2800000
Ethylene dichloride	9.7	69	20	1000
Hydrogen Chloride (HCl)	1350	61	13	180000
Hydrogen Sulfide (H2S)	8110	61	3	120000
PAH's (benzo[a]pyrene equiv)	.043	54	8	490
Cellosolve acetate	12400	53	0	7900
Copper (all) pollutant	463	53	0	410
Vinyl chloride	2.5	52	39	9300
Chlorinated dioxins & furans (	.0000012	51	24	.0006800
Zinc pollutant	6760	50	0	3300
Selenium	96.5	47	3	760
Hydrogen Fluoride (HF)	1140	45	0	1200
Trichloroethane, 1,1,1- (with	61800	42	0	12000
Carbon tetrachloride	4.6	41	1	1900
Ethylene oxide	2.1	40	4	55
Vinylidene chloride	6180	37	0	780
Dichlorobenzene	68	34	5	1400
Ethylene dibromide	2.7	30	2	280
Ethyl chloride	1930000	29	0	1500
Phenol	8690	21	1	19000
Methyl cellosolve	3860	14	1	7200
Cresol	34700	13	0	620
Chlorobenzene	13500	10	0	6400
Butadiene, 1,3-	1.1	9	6	4100
Chlorobenzene - other/not spec	13500	9	0	11000
Acrolein	3.9	8	2	210
Polychlorinated biphenyl (PCB)	.007	8	7	3.000
Naphthalene	270	7	0	160
Ethyl acrylate	9260	6	0	93
Chlorine pollutant	1370	5	1	1900
Toluene diisocyanate (TDI)	18.3	5	1	300
Butyl alcohol, tert-		4	4	1100

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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)
Isophorone	390000	4	0	110
Methyl methacrylate	189000	4	0	35
Acrylic acid	190	3	0	7
Acrylonitrile	.67	3	3	99
Benzyl chloride	2320	3	0	960
Epichlorohydrin	8.3	3	0	6.2
Phthalic anhydride	1350000	3	0	99
Allyl chloride	193	2	0	83
Asbestos pollutant	.003	2	0	.000
Hexachlorobenzene	.39	2	0	.03
Methyl bromide	1160	2	0	0
Hexamethylene-1,6-diisocyanate	1.9	1	0	1.9
Phosphine	1930	1	0	110
Tetrachloroethane, 1,1,2,2-	3.3	1	0	.0
Triethylamine	1400	1	0	130
----- 75 pollutants				----- 6766000

number of toxic pollutants tracked in BAAQMD: 113
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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	51	24	.0006800
Chromium (hexavalent)	.0014	251	80	9.4000
Asbestos pollutant	.003	2	0	.000
Polychlorinated biphenyl (PCB)	.007	8	7	3.000
Beryllium (all) pollutant	.015	220	17	1.200
Arsenic (all)	.024	221	36	37
PAH's (benzo[a]pyrene equiv)	.043	54	8	490
Cadmium	.046	227	26	50
Hexachlorobenzene	.39	2	0	.03
Acrylonitrile	.67	3	3	99
Nickel pollutant	.73	233	38	730
Butadiene, 1,3-	1.1	9	6	4100
Hexamethylene-1,6-diisocyanate	1.9	1	0	1.9
Ethylene oxide	2.1	40	4	55
Vinyl chloride	2.5	52	39	9300
Ethylene dibromide	2.7	30	2	280
Tetrachloroethane, 1,1,2,2-	3.3	1	0	.0
Acrolein	3.9	8	2	210
Carbon tetrachloride	4.6	41	1	1900
Benzene	6.7	1141	174	70000
Epichlorohydrin	8.3	3	0	6.2
Ethylene dichloride	9.7	69	20	1000
Toluene diisocyanate (TDI)	18.3	5	1	300
Dioxane, 1,4-	25	74	9	1200
Lead (all) pollutant	29	231	2	480
Formaldehyde	33	502	87	210000
Perchloroethylene	33	882	816	610000
Chloroform	36	93	37	17000
Mercury (all) pollutant	57.9	221	3	610
Dichlorobenzene	68	34	5	1400
Acetaldehyde	72	90	13	56000
Manganese	77	186	6	1200
Selenium	96.5	47	3	760
Trichloroethylene	97	139	41	26000
Acrylic acid	190	3	0	7
Methylene chloride	190	149	66	98000
Allyl chloride	193	2	0	83
Naphthalene	270	7	0	160
Copper (all) pollutant	463	53	0	410
Hydrogen Fluoride (HF)	1140	45	0	1200
Methyl bromide	1160	2	0	0
Hydrochloric acid mist polluta	1350	78	3	20000
Hydrogen Chloride (HCl)	1350	61	13	180000
Chlorine pollutant	1370	5	1	1900
Triethylamine	1400	1	0	130
Phosphine	1930	1	0	110
Benzyl chloride	2320	3	0	960
Butyl cellosolve	3860	445	9	300000
Glycol ether - other/not spec	3860	161	4	67000
Methyl cellosolve	3860	14	1	7200
Vinylidene chloride	6180	37	0	780
Zinc pollutant	6760	50	0	3300
Hydrogen Sulfide (H2S)	8110	61	3	120000
Phenol	8690	21	1	19000
Ethyl acrylate	9260	6	0	93
Cellosolve acetate	12400	53	0	7900
Chlorobenzene	13500	10	0	6400
Chlorobenzene - other/not spec	13500	9	0	11000
Ammonia (NH3) pollutant	19300	69	21	2800000
Cresol	34700	13	0	620

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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)
Cellulosolve	38600	70	1	110000
Toluene	38600	874	1	370000
Hexane	39000	88	2	240000
Xylene	57900	1034	2	410000
Trichloroethane, 1,1,1- (w/o	61800	124	0	120000
Trichloroethane, 1,1,1- (with	61800	42	0	12000
Methyl alcohol	120000	362	1	390000
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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	882	816	610000
Benzene	6.7	1141	174	70000
Formaldehyde	33	502	87	210000
Chromium (hexavalent)	.0014	251	80	9.4000
Methylene chloride	190	149	66	98000
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Manganese	77	186	6	1200
Dichlorobenzene	68	34	5	1400
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Ethylene oxide	2.1	40	4	55
Glycol ether - other/not spec	3860	161	4	67000
Acrylonitrile	.67	3	3	99
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Mercury (all) pollutant	57.9	221	3	610
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Carbon tetrachloride	4.6	41	1	1900
Cellosolve	38600	70	1	110000
Chlorine pollutant	1370	5	1	1900
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Cellosolve acetate	12400	53	0	7900
Chlorobenzene	13500	10	0	6400
Chlorobenzene - other/not spec	13500	9	0	11000
Copper (all) pollutant	463	53	0	410
Cresol	34700	13	0	620
Epichlorohydrin	8.3	3	0	6.2
Ethyl acrylate	9260	6	0	93
Ethyl benzene	190000	224	0	33000
Ethyl chloride	1930000	29	0	1500
Hexachlorobenzene	.39	2	0	.03
Hexamethylene-1,6-diisocyanate	1.9	1	0	1.9

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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)
Hydrogen Fluoride (HF)	1140	45	0	1200
Isophorone	390000	4	0	110
Methyl bromide	1160	2	0	0
Methyl methacrylate	189000	4	0	35
Methyl tertiary-butyl ether	580000	119	0	220000
Naphthalene	270	7	0	160
Phosphine	1930	1	0	110
Phthalic anhydride	1350000	3	0	99
Styrene	135000	79	0	240000
Tetrachloroethane, 1,1,2,2-	3.3	1	0	.0
Trichloroethane, 1,1,1- (w/o	61800	124	0	120000
Trichloroethane, 1,1,1- (with	61800	42	0	120000
Triethylamine	1400	1	0	130
Vinylidene chloride	6180	37	0	780
Zinc pollutant	6760	50	0	3300
----- 75 pollutants				----- 6766000

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