

APPENDIX A

TOXIC AIR CONTAMINANTS

APPENDIX A-1

**CALIFORNIA ARB
TOXIC AIR CONTAMINANT
IDENTIFICATION LIST**

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TOXIC AIR CONTAMINANTS

The substances listed are designated as toxic air contaminants by the California State Air Resources Board under the California Code of Regulations Section 93001.

<u>Toxic Air Contaminant</u>	<u>Toxic Air Contaminant</u>
Acetaldehyde	Cumene
Acetamide	Diazomethane
Acetonitrile	1,2-Dibromo-3-chloropropane
Acetophenone	Dibutyl phthalate
2-Acetylaminofluorene	1,4-Dichlorobenzene(p)
Acrolein	3,3'-Dichlorobenzidine
Acrylamide	Dichlorodiphenyldichloroethylene (DDE)
Acrylic acid	Dichloroethyl ether (Bis(2-chloroethyl)ether)
Acrylonitrile	2,4-Dichlorophenoxyacetic acid, (2,4-D) salts and esters
Allyl chloride	1,3-Dichloropropene
4-Aminobiphenyl	Dichlorvos
Aniline	Diethanolamine
o-Anisidine	Diethyl Sulfate
Asbestos	N,N-Dimethylaniline
Benzene (including benzene from gasoline)	3,3'-Dimethoxybenzidine
Benzidine	Dimethyl aminoazobenzene
Benzotrichloride	3,3'-Dimethylbenzidine
Benzyl chloride	Dimethyl carbamoyl chloride
Biphenyl	Dimethyl formamide
Bis(2-ethylhexyl)phthalate (DEHP)	1,1-Dimethylhydrazine
Bis(chloromethyl)ether	Dimethyl phthalate
Bromoform	Dimethyl sulfate
1,3-Butadiene	4,6-Dinitro-o-cresol, and salts
Calcium cyanamide	2,4-Dinitrophenol
Captan	2,4-Dinitrotoluene
Carbaryl	1,4-Dioxane (1,4-Diethyleneoxide)
Carbon disulfide	1,2-Diphenylhydrazine
Carbon tetrachloride	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
Carbonyl sulfide	1,2-Epoxybutane
Catechol	Ethyl acrylate
Chloramben	Ethyl benzene
Chlordane	Ethyl carbamate (Urethane)
Chlorinated dioxins and dibenzofurans	Ethyl chloride (Chloroethane)
Chlorine	Ethylene dibromide (Dibromoethane)
Chloroacetic acid	Ethylene dichloride (1,2-Dichloroethane)
2-Chloroacetophenone	Ethylene glycol
Chlorobenzene	Ethyleneimine (Aziridine)
Chlorobenzilate	Ethylene oxide
Chloroform	Ethylene thiourea
Chloromethyl methyl ether	Ethylidene dichloride (1,1-Dichloroethane)
Chloroprene	Formaldehyde
Chromium VI	Heptachlor
Cresols/Cresylic acid (isomers and mixtures)	Hexachlorobenzene
o-Cresol	Hexachlorobutadiene
m-Cresol	Hexachlorocyclopentadiene
p-Cresol	

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<u>Toxic Air Contaminant</u>	<u>Toxic Air Contaminant</u>
Hexachloroethane	Propylene dichloride (1,2-Dichloropropane)
Hexamethylene-1,6-diisocyanate	Propylene oxide
Hexamethylphosphoramide	1,2-Propylenimine (2-Methylaziridine)
Hexane	Quinoline
Hydrazine	Quinone
Hydrochloric acid	Styrene
Hydrogen fluoride (Hydrofluoric acid)	Styrene oxide
Hydroquinone	2,3,7,8-Tetrachlorodibenzo-p-dioxin
Isophorone	1,1,2,2-Tetrachloroethane
Lindane (all isomers)	Tetrachloroethylene (Perchloroethylene)
Maleic anhydride	Titanium tetrachloride
Methanol	Toluene
Methoxychlor	2,4-Toluenediamine
Methyl bromide (Bromomethane)	2,4-Toluene diisocyanate
Methyl chloride (Chloromethane)	o-Toluidine
Methyl chloroform (1,1,1-Trichloroethane)	Toxaphene (chlorinated camphene)
Methyl ethyl ketone (2-Butanone)	1,2,4-Trichlorobenzene
Methyl hydrazine	1,1,2-Trichloroethane
Methyl iodide (Iodomethane)	Trichloroethylene
Methyl isobutyl ketone (Hexone)	2,4,5-Trichlorophenol
Methyl isocyanate	2,4,6-Trichlorophenol
Methyl methacrylate	Triethylamine
Methyl tert-butyl ether (MTBE)	Trifluralin
4,4-Methylene bis(2-chloroaniline)	2,2,4-Trimethylpentane
Methylene chloride (Dichloromethane)	Vinyl acetate
Methylene diphenyl diisocyanate (MDI)	Vinyl bromide
4,4-Methylenedianiline	Vinyl chloride
Naphthalene	Vinylidene chloride (1,1-Dichloroethylene)
Nitrobenzene	Xylenes (isomers and mixture)
4-Nitrobiphenyl	o-Xylenes
4-Nitrophenol	m-Xylenes
2-Nitropropane	p-Xylenes
N-Nitroso-N-methylurea	Antimony Compounds
N-Nitrosodimethylamine	Arsenic Compounds (inorganic including arsine)
N-Nitrosomorpholine	Beryllium Compounds
Parathion	Cadmium Compounds
Particulate matter - diesel IC engine exhaust	Chromium Compounds
Pentachloronitrobenzene (Quintobenzene)	Cobalt Compounds
Pentachlorophenol	Coke Oven Emissions
Phenol	Cyanide Compounds ¹
p-Phenylenediamine	Glycol ethers ²
Phosgene	Lead Compounds
Phosphine	Manganese Compounds
Phosphorus	Mercury Compounds
Phthalic anhydride	Fine mineral fibers ³
Polychlorinated biphenyls (Aroclors)	Nickel Compounds
1,3-Propane sultone	Polycyclic Organic Matter ⁴
beta-Propiolactone	Radionuclides (including radon) ⁵
Propionaldehyde	Selenium Compounds
Propoxur (Baygon)	

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APPENDIX A-1 NOTES

This List of Substances was established by Titles 17 and 26 of the California Code of Regulations Section 93001.

GENERAL NOTE: For all substances listed which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

- 1** X'CN where X=H' or any other group where a formal dissociation may occur.
For example KCN or Ca(CN)₂
- 2** includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol (R(OCH₂CH₂)_n-OR' where
n = 1,2 or 3
R = alkyl or aryl groups
R' = R, H, or groups which, when removed, yield glycol ethers with the structure R(OCH₂CH)_n-OH. Polymers are excluded from the glycol category.
- 3** includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.
- 4** includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.
- 5** a type of atom which spontaneously undergoes radioactive decay.

APPENDIX A-2

**"HOT SPOTS" PROGRAM
LIST OF SUBSTANCES**

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The California State ARB "Hot Spots" Emission Inventory Guidelines contain instructions for the preparation of toxic air contaminant emission inventories. Appendix A of those guidelines establishes a list of the substances which must be included in the inventories. The following is a list of those substances.

Substances For Which Emissions Must Be Quantified

Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
75070		Acetaldehyde
60355		Acetamide
75058	06/91	Acetonitrile
98862	06/91	Acetophenone
53963		2-Acetylaminofluorene [PAH-Derivative, POM]
107028		Acrolein
79061		Acrylamide
79107	06/91	Acrylic acid
107131		Acrylonitrile
107051		Allyl chloride
7429905	06/91	Aluminum
1344281	06/91	Aluminum oxide (fibrous forms)
117793		2-Aminoanthraquinone [PAH-Derivative, POM]
92671		4-Aminobiphenyl [POM]
61825		Amitrole
7664417		Ammonia
6484522	06/91	Ammonium nitrate
7783202	06/91	Ammonium sulfate
62533	09/90	Aniline
90040		o-Anisidine
-		Anthracene [PAH, POM], (see PAH)
7440360	06/91	Antimony
*	06/91	Antimony compounds ** including but not limited to:
1327339	09/90	Antimony trioxide
7440382		Arsenic
*	06/91	Arsenic compounds (other than inorganic) **
*		Arsenic compounds (inorganic) ** including but not limited to:
7784421		Arsine
1332214		Asbestos (see mineral fibers)
7440393	06/91	Barium
*	06/91	Barium compounds **
-		Benz[a]anthracene [PAH, POM], (see PAH)
71432		Benzene
92875		Benzidine (and its salts) [POM]
*		Benzidine-based dyes [POM] including but not limited to:
1937377		Direct Black 38 [PAH-Derivative, POM]
2602462		Direct Blue 6 [PAH-Derivative, POM]
16071866	09/89	Direct Brown 95 (technical grade) [POM]
-		Benzo[a]pyrene [PAH, POM], (see PAH)
-		Benzo[b]fluoranthene [PAH, POM], (see PAH)
271896	06/91	Benzofuran
98077		Benzoic trichloride (Benzotrithloride)
-		Benzo[j]fluoranthene [PAH, POM], (see PAH)
-		Benzo[k]fluoranthene [PAH, POM], (see PAH)
98884	06/91	Benzoyl chloride
94360	06/91	Benzoyl peroxide
100447		Benzyl chloride
7440417		Beryllium

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Substances For Which Emissions Must Be Quantified

Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
*	09/89	Beryllium compounds **
92524	06/91	Biphenyl [POM]
111444	09/89	Bis(2-chloroethyl)ether {DCEE}
542881		Bis(chloromethyl)ether
103231	06/91	Bis(2-ethylhexyl) adipate
7726956		Bromine
*		Bromine compounds (inorganic) ** including but not limited to:
7758012		Potassium bromate
75252	06/91	Bromoform
106990		1,3-Butadiene
141322	06/91	Butyl acrylate
71363	06/91	n-Butyl alcohol
78922	06/91	sec-Butyl alcohol
75650	06/91	tert-Butyl alcohol
85687	06/91	Butyl benzyl phthalate
7440439		Cadmium
*		Cadmium compounds **
156627	06/91	Calcium cyanamide
105602	06/91	Caprolactam
2425061	09/89	Captafol
133062	09/90	Captan
63252	06/91	Carbaryl [PAH-Derivative, POM]
*		Carbon black extracts
75150	09/89	Carbon disulfide
56235		Carbon tetrachloride
463581	06/91	Carbonyl sulfide
*		Carrageenan (degraded)
120809	06/91	Catechol
133904	06/91	Chloramben
57749	09/89	Chlordane
108171262	09/89	Chlorinated paraffins (average chain length, C12; approximately 60% chlorine by weight)
7782505		Chlorine
10049044	06/91	Chlorine dioxide
79118	06/91	Chloroacetic acid
532274	06/91	2-Chloroacetophenone
106478	07/96	p-Chloroaniline
*	06/91	Chlorobenzenes including but not limited to:
108907		Chlorobenzene
25321226	06/91	Dichlorobenzenes (mixed isomers) including:
95501	06/91	1,2-Dichlorobenzene
541731	06/91	1,3-Dichlorobenzene
106467		p-Dichlorobenzene {1,4-Dichlorobenzene}
120821	06/91	1,2,4-Trichlorobenzene
510156	09/90	Chlorobenzilate {Ethyl-4,4'-dichlorobenzilate} [POM]
67663		Chloroform
107302		Chloromethyl methyl ether (technical grade)
*		Chlorophenols including but not limited to:
120832	06/91	2,4-Dichlorophenol
87865	09/90	Pentachlorophenol
58902	07/96	2,3,4,6-Tetrachlorophenol
95954	06/91	2,4,5-Trichlorophenol

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Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
88062		2,4,6-Trichlorophenol
95830		4-Chloro-o-phenylenediamine
76062		Chloropicrin
126998		Chloroprene
95692		p-Chloro-o-toluidine
7440473	06/91	Chromium
*	06/91	Chromium compounds (other than hexavalent) **
18540299		Chromium, hexavalent (and compounds) ** including but not limited to:
10294403	06/91	Barium chromate
13765190	06/91	Calcium chromate
1333820	06/91	Chromium trioxide
7758976	06/91	Lead chromate
10588019	06/91	Sodium dichromate
7789062	06/91	Strontium chromate
-		Chrysene [PAH, POM], (see PAH)
7440484	06/91	Cobalt
*	06/91	Cobalt compounds **
*		Coke oven emissions
7440508		Copper
*	09/89	Copper compounds **
*		Creosotes
120718		p-Cresidine
1319773		Cresols (mixtures of) {Cresylic acid} including:
108394	06/91	m-Cresol
95487	06/91	o-Cresol
106445	06/91	p-Cresol
4170303	07/96	Crotonaldehyde
98828	06/91	Cumene
80159	06/91	Cumene hydroperoxide
135206		Cupferron
*	06/91	Cyanide compounds ** including but not limited to:
74908		Hydrocyanic acid
110827	06/91	Cyclohexane
108930	07/96	Cyclohexanol
66819		Cycloheximide
1163195	06/91	Decabromodiphenyl oxide [POM]
*		Dialkylnitrosamines including but not limited to:
924163		N-Nitrosodi-n-butylamine
1116547		N-Nitrosodiethanolamine
55185		N-Nitrosodiethylamine
62759		N-Nitrosodimethylamine
1621647		N-Nitrosodi-n-propylamine
10595956		N-Nitrosomethylethylamine
615054		2,4-Diaminoanisoole
*	09/90	Diaminotoluenes (mixed isomers) including but not limited to:
95807		2,4-Diaminotoluene {2,4-Toluenediamine}
334883	06/91	Diazomethane
226368		Dibenz[a,h]acridine [POM]
224420		Dibenz[a,j]acridine [POM]
-		Dibenz[a,h]anthracene [PAH, POM], (see PAH)
194592		7H-Dibenzo[c,g]carbazole [POM]

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Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
132649	06/91	Dibenzofuran [POM]
-		Dibenzofurans (chlorinated) (see Polychlorinated dibenzofurans) [POM]
-		Dibenzo[a,e]pyrene [PAH, POM], (see PAH)
-		Dibenzo[a,h]pyrene [PAH, POM], (see PAH)
-		Dibenzo[a,i]pyrene [PAH, POM], (see PAH)
-		Dibenzo[a,l]pyrene [PAH, POM], (see PAH)
96128		1,2-Dibromo-3-chloropropane {DBCP}
96139	07/96	2,3-Dibromo-1-propanol
84742	06/91	Dibutyl phthalate
-		p-Dichlorobenzene {1,4-Dichlorobenzene} (see Chlorobenzenes)
91941		3,3'-Dichlorobenzidine [POM]
72559	09/89	Dichlorodiphenyldichloroethylene [DDE] [POM]
75343	09/90	1,1-Dichloroethane {Ethylidene dichloride}
94757	06/91	2,4-Dichlorophenoxyacetic acid {2,4-D} salts and esters
78875	09/90	1,2-Dichloropropane {Propylene dichloride}
542756		1,3-Dichloropropene
62737	09/89	Dichlorovos {DDVP}
115322	06/91	Dicofol [POM]
*	09/90	Diesel engine exhaust
*	06/91	Diesel fuel (marine)
111422	06/91	Diethanolamine
117817		Di(2-ethylhexyl) phthalate {DEHP}
64675		Diethyl sulfite
119904		3,3'-Dimethoxybenzidine [POM]
60117		p-Dimethylaminoazobenzene {Methyl yellow} [POM]
121697	06/91	N,N-Dimethylaniline
57976	09/90	7,12-Dimethylbenz[a]anthracene [PAH]-Derivative, POM
119937		3,3'-Dimethylbenzidine {o-Tolidine} [POM]
79447		Dimethyl carbamoyl chloride
68122	09/90	Dimethyl formamide
57147		1,1-Dimethylhydrazine
131113	06/91	Dimethyl phthalate
77781		Dimethyl sulfate
534521	06/91	4,6-Dinitro-o-cresol and salts
51285	06/91	2,4-Dinitrophenol
42397648	06/91	1,6-Dinitropyrene [PAH-Derivative, POM]
423976659	06/91	1,8-Dinitropyrene [PAH-Derivative, POM]
25321146	06/91	Dinitrotoluenes (mixed isomers) including but not limited to:
121142	09/89	2,4-Dinitrotoluene
606202	06/91	2,6-Dinitrotoluene
123911		1,4-Dioxane
-		Dioxins (Chlorinated dibenzodioxins) (see Polychlorinated dibenzo-p-dioxins) [POM]
630933		Diphenylhydantoin [POM]
122667		1,2-Diphenylhydrazine {hydrazobenzene} [POM]
*		Environmental tobacco smoke
106898		Epichlorohydrin
106887	06/91	1,2-Epoxybutane
*	09/89	Epoxy resins
140885		Ethyl acrylate
100414	06/91	Ethyl benzene
75003		Ethyl chloride {Chloroethane}

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Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
-		Ethyl-4,4'-dichlorobenzilate (see Chlorobenzilate)
74851	06/91	Ethylene
106934		Ethylene dibromide {1,2-Dibromoethane}
107062		Ethylene dichloride {1,2-Dichloroethane}
107211	06/91	Ethylene glycol
151564	06/91	Ethyleneimine {Aziridine}
75218		Ethylene oxide
96457		Ethylene thiourea
*	09/89	Fluorides and compounds including but not limited to:
7664393		Hydrogen fluoride
*		Fluorocarbons (brominated)
*		Fluorocarbons (chlorinated) including but not limited to:
76131		Chlorinated fluorocarbon {CFC 113}
75456	07/96	Chlorodifluoromethane {HCFC 22} {Freon 22}
75434	07/96	Dichlorodifluoromethane {CFC 12} {Freon 12}
75694	07/96	Trichlorofluoromethane {CFC 11} {Freon 11}
50000		Formaldehyde
110009	07/96	Furan
*	09/90	Gasoline engine exhaust including but not limited to:
*	06/91	Gasoline engine exhaust (condensates and extracts)
*		Gasoline vapors
111308		Glutaraldehyde
*		Glycol ethers and their acetates including but not limited to:
111466	09/90	Diethylene glycol
111966	09/90	Diethylene glycol dimethyl ether
112345	09/90	Diethylene glycol monobutyl ether
111900	09/90	Diethylene glycol monoethyl ether
111773	09/90	Diethylene glycol monomethyl ether
25265718	09/90	Dipropylene glycol
34590948	09/90	Dipropylene glycol monomethyl ether
629141	09/90	Ethylene glycol diethyl ether
110714	09/90	Ethylene glycol dimethyl ether
111762	09/90	Ethylene glycol monobutyl ether
110805	09/89	Ethylene glycol monoethyl ether
111159	09/90	Ethylene glycol monoethyl ether acetate
109864	09/89	Ethylene glycol monomethyl ether
110496	09/90	Ethylene glycol monomethyl ether acetate
2807309	09/90	Ethylene glycol monopropyl ether
107982	09/90	Propylene glycol monomethyl ether
108656	09/90	Propylene glycol monomethyl ether acetate
112492	09/90	Triethylene glycol dimethyl ether
76448	09/89	Heptachlor
118741		Hexachlorobenzene
87683	06/91	Hexachlorobutadiene
*		Hexachlorocyclohexanes including but not limited to:
58899	09/90	Lindane
77474		Hexachlorocyclopentadiene
67721	09/90	Hexachloroethane
680319		Hexamethylphosphoramide
110543	06/91	Hexane
302012		Hydrazine

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Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
7647010		Hydrochloric acid
-		Hydrocyanic acid (see Cyanide compounds **)
7783064		Hydrogen sulfide
123319	06/91	Hydroquinone
-		Indeno[1,2,3,-cd]pyrene [PAH, POM] (see PAH)
13463406	07/96	Iron pentacarbonyl
*		Isocyanates including but not limited to:
82260	06/91	Hexamethylene-1,6-diisocyanate
101688	06/91	Methylene diphenyl diisocyanate {MDI} [POM]
624839		Methyl isocyanate
-		Toluene-2,4- diisocyanate (see Toluene diisocyanates)
-		Toluene-2,6-diisocyanate (see Toluene diisocyanates)
78591	06/91	Isophorone
78795	07/96	Isoprene (except from vegetative sources)
67630	06/91	Isopropyl alcohol
80057	06/91	4,4'-Isopropylidenediphenol [POM]
7439921		Lead
*		Lead compounds (inorganic) ** including but not limited to:
7446277		Lead phosphate
*	06/91	Lead compounds (other than inorganic) ** including but not limited to:
301042		Lead acetate
1335326	09/90	Lead subacetate
108316		Maleic anhydride
7439965		Manganese
*	09/89	Manganese compounds **
7439976		Mercury
*	09/89	Mercury compounds ** including but not limited to:
7487947		Mercuric chloride
593748		Methyl mercury {Dimethylmercury}
67561		Methanol
72435	06/91	Methoxychlor [POM]
75558		2-Methylaziridine {1,2-Propyleneimine}
74839		Methyl bromide {Bromomethane}
74873	06/91	Methyl chloride {Chloromethane}
71556		Methyl chloroform {1,1,1-Trichloroethane}
56495	09/90	3-Methylcholanthrene [PAH-Derivative, POM]
3697243		5-Methylchrysene [PAH-Derivative, POM]
101144		4,4'-Methylene bis(2-chloroaniline) {MOCA} [POM]
75092		Methylene chloride {Dichloromethane}
101779		4,4'-Methylenedianiline (and its dichloride) [POM]
78933	06/91	Methyl ethyl ketone {2-Butanone}
60344	06/91	Methyl hydrazine
74884		Methyl iodide {Iodomethane}
108101	06/91	Methyl isobutyl ketone {Hexone}
75865	07/96	2-Methylactonitrile {Acetone cyanohydrin}
80626		Methyl methacrylate
109068	07/96	2-Methylpyridine
1634044	06/91	Methyl tert-butyl ether
90948		Michler's ketone [POM]

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Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
*	06/91	Mineral fibers (fine, manmade) (fine mineral fibers which are manmade and are airborne particles of a respirable size greater than 5 microns in length, less than or equal to 3.5 microns in diameter, with a length to diameter ratio of 3:1) including but not limited to:
*	09/89	Ceramic fibers
*	09/89	Glasswool fibers
*	09/89	Rockwool fibers
*	09/89	Slagwool fibers
*		Mineral fibers (other than manmade) including but not limited to :
1332214		Asbestos
12510428	06/91	Erionite
*		Talc containing asbestiform fibers
1313275	06/91	Molybdenum trioxide
-		Napthalene [PAH, POM] (see PAH)
7440020		Nickel
*		Nickel compounds ** including but not limited to:
373024	06/91	Nickel acetate
3333393	06/91	Nickel carbonate
13463393		Nickel carbonyl
12054487	06/91	Nickel hydroxide
1271289	06/91	Nickelocene
1313991	06/91	Nickel oxide
12035722		Nickel subsulfide
*	09/89	Nickel refinery dust from the pyrometallurgical process
7697372	06/91	Nitric acid
139139		Nitrioltriacetic acid
98953		Nitrobenzene
92933	09/89	4-Nitrobiphenyl [POM]
7496028	06/91	6-Nitrochrysene [PAH-Derivative, POM]
607578	06/91	2-Nitrofluorene [PAH-Derivative, POM]
302705		Nitrogen mustard N-oxide
100027	06/91	4-Nitrophenol
79469		2-Nitropropane
5522430	06/91	1-Nitropyrene [PAH-Derivative, POM]
156105		p-Nitrosodiphenylamine [POM]
59892		N-Nitrosomorpholine
684935		N-Nitroso-N-methylurea
100754		N-Nitrosopiperidine
930552		N-Nitrosopyrrolidine
*		PAHs ^b (Polycyclic Aromatic Hydrocarbons) [POM] including but not limited to: (see NOTES)
83329	07/96	Acenaphthene
208968	07/96	Acenaphthylene
120127	06/91	Anthracene
56553		Benz[a]anthracene
205992		Benzo[b]fluoranthene
205823		Benzo[j]fluoranthene
207089		Benzo[k]fluoranthene
50328		Benzo[a]pyrene
192972	07/96	Benzo[e]pyrene
191242	07/96	Benzo[g,h,i]pyrene
218019	09/90	Chrysene

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Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
53703		Dibenz[a,h]anthracene
192654		Dibenzo[a,e]pyrene
189640		Dibenzo[a,h]pyrene
189559		Dibenzo[a,i]pyrene
191300		Dibenzo[a,l]pyrene
206440	07/96	Fluoranthene
86737	07/96	Fluorene
193395		Indeno[1,2,3-cd]pyrene
91576	07/96	2-Methyl naphthalene
91203		Naphtalene
198550	07/96	Perylene
85018	07/96	Phenanthrene
129000	07/96	Pyrene
*	06/91	PAH-Derivatives ^c (Polycyclic Aromatic Hydrocarbon derivatives) [POM] (including but not limited to those substances listed in Appendix A-2 with the bracketed designation [PAH-Derivative, POM] (see NOTES)
56382	06/91	Parathion
1336363		PCBs (Polychlorinated biphenyls) [POM]
82688	06/91	Pentachloronitrobenzene {Quintobenzene}
79210	06/91	Peracetic acid
127184		Perchloroethylene {Tetrachloroethene}
108952		Phenol
106503	06/91	p-Phenylenediamine
90437	06/91	2-Phenylphenol [POM]
75445		Phosgene
7723140		Phosphorus
*	09/89	Phosphorus compounds:
7803512		Phospine
7664382	09/89	Phosphoric acid
10025873	09/89	Phosphorus oxychloride
10026138	09/89	Phosphorus pentachloride
1314563	09/89	Phosphorus pentoxide
7719122	09/89	Phosphorus trichloride
126738	09/89	Tributyl phosphate
78400	09/89	Triethyl phosphine
512561	09/89	Trimethyl phosphate
78308	09/89	Triorthocresyl phosphate [POM]
115866	09/89	Triphenyl phosphate [POM]
101020	09/89	Triphenyl phosphite [POM]
85449	09/89	Phthalic anhydride
*		Polychlorinated dibenzo-p-dioxins {PCDDs} [POM] including but not limited to:
1746016		2,3,7,8-Tetrachlorodibenzo-p-dioxin {TCDD} [POM]
40321764		1,2,3,7,8-Pentachlorodibenzo-p-dioxin [POM]
39227286		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [POM]
57653857		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [POM]
19408743		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [POM]
35822469		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [POM]
3268879	07/96	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin [POM]
41903575	07/96	Total Tetrachlorodibenzo-p-dioxin [POM]
36088229	07/96	Total Pentachlorodibenzo-p-dioxin [POM]
34465468	07/96	Total Hexachlorodibenzo-p-dioxin [POM]
37871004	07/96	Total Heptachlorodibenzo-p-dioxin [POM]

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Chemical Abstract (CAS) Number	Add Date ^a	Substance Name
*		Polychlorinated dibenzofurans {PCDFs} [POM] including but not limited to:
51207319		2,3,7,8-Tetrachlorodibenzofuran [POM]
57117416		1,2,3,7,8-Pentachlorodibenzofuran [POM]
57117314		2,3,4,7,8-Pentachlorodibenzofuran [POM]
70648269		1,2,3,4,7,8-Hexachlorodibenzofuran [POM]
57117449		1,2,3,6,7,8-Hexachlorodibenzofuran [POM]
72918219		1,2,3,7,8,9-Hexachlorodibenzofuran [POM]
60851345		2,3,4,6,7,8-Hexachlorodibenzofuran [POM]
67562394		1,2,3,4,6,7,8-Heptachlorodibenzofuran [POM]
55673897		1,2,3,4,7,8,9-Heptachlorodibenzofuran [POM]
39001020	07/96	1,2,3,4,5,6,7,8-Octachlorodibenzofuran [POM]
55722275	07/96	Total Tetrachlorodibenzofuran [POM]
30402154	07/96	Total Pentachlorodibenzofuran [POM]
55684941	07/96	Total Hexachlorodibenzofuran [POM]
38998753	07/96	Total Heptachlorodibenzofuran [POM]
*	09/89	POM ^d (Polycyclic Organic Matter) (including but not limited to those substances listed in Appendix A-2 with the bracketed designation of [POM], [PAH, POM], or [PAH-Derivative, POM] (see NOTES)
1120714		1,3-Propane sultone
57578		beta-Propiolactone
123386	06/91	Propionaldehyde
114261	06/91	Propoxur {Baygon}
115071		Propylene
-		1,2-Propyleneimine (see 2-Methylaziridine)
75569		Propylene oxide
110861	06/91	Pyridine
91225	06/91	Quinoline
106514	06/91	Quinone
*		Radionuclides including but not limited to:
24267569	09/89	Iodine-131
*	09/89	Radon and its decay products
50555		Reserpine [POM]
*	06/91	Residual (heavy) fuel oils
7782492		Selenium
*		Selenium compounds ** including but not limited to:
7446346	09/90	Selenium sulfide
*		Silica, crystalline
7440224	06/91	Silver
*	06/91	Silver compounds **
1310732		Sodium hydroxide
100425		Styrene
96093		Styrene oxide
7664939	06/91	Sulfuric acid
100210	06/91	Terephthalic acid
79345	09/90	1,1,2,2-Tetrachloroethane
7440280	06/91	Thallium
*	06/91	Thallium compounds **
62555		Thioacetamide
62566		Thiourea
7550450	06/91	Titanium tetrachloride
108883		Toluene
-		2,4-Toluenediamine (see 2,4-Diaminotoluene)

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*	06/91	Toluene diisocyanates including but not limited to:
584849		Toluene-2,4-diisocyanate
91087		Toluene-2,6-diisocyanate
95534		o-Toluidine
8001352		Toxaphene {Polychlorinated camphenes}
-		1,1,1-Trichloroethane (see Methyl chloroform)
79005	06/91	1,1,2-Trichloroethane {Vinyl trichloride}
79016		Trichloroethylene
-		2,4,6-Trichlorophenol (see Chlorophenols)
96184	07/96	1,2,3-Trichloropropane
121448	06/91	Triethylamine
1582098	06/91	Trifluralin
95636	06/91	1,2,4-Trimethylbenzene
540841	06/91	2,2,4-Trimethylpentane
51796		Urethane {Ethyl carbamate}
*	06/91	Vanadium (fume or dust)
108054	06/91	Vinyl acetate
593602		Vinyl bromide
75014		Vinyl chloride
100403	07/96	4-Vinylcyclohexene
75025	07/96	Vinyl fluoride
75354		Vinylidene chloride
*	09/89	Wood preservatives (containing arsenic and chromate)
*		Xylenes (mixed xylenes), including:
108383	06/91	m-Xylene
95476	06/91	o-Xylene
106423	06/91	p-Xylene
7440666		Zinc
*	09/89	Zinc compounds ** including but not limited to:
1314132		Zinc oxide

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APPENDIX A-2 NOTES:

- * single CAS number not applicable
 - ** metal compounds are to be reported as the metal atom equivalent in the compound, unless specific compounds are listed.

 - ^a All listed substances except those with a (6/91) add date are required to be addressed in risk assessments prepared under the third phase of the program (i.e., those facilities that were required to submit an emission inventory plan or update plan to the District by August 1, 1991). The original list was approved by the ARB Board in July 1988.

 - ^b PAH: (Polycyclic Aromatic Hydrocarbon) - An organic compound consisting of a fused ring structure containing at least two (2) benzene rings and which may also contain additional fused rings not restricted exclusively to hexagonal rings. The structure does not include any heteroatoms or substituent groups. The structure includes only carbon and hydrogen. PAHs are a subgroup of POM and have a boiling point of greater than or equal to 100°C.

 - ^c PAH-Derivative: (Polycyclic Aromatic Hydrocarbon Derivative) - An organic compound consisting of a fused ring structure containing at least two (2) benzene rings, and which may also contain additional fused rings not restricted exclusively to hexagonal rings. The fused ring structure does not contain heteroatoms. The structure does contain one or more substituent groups. PAH-Derivatives are a subgroup of POM and have a boiling point of greater than or equal to 100°C.

 - ^d POM: (Polycyclic Organic Matter) - Includes organic compounds with more than one benzene ring, and which have a boiling point of greater than or equal to 100°C.
- { } This designation indicates a synonym for the substance listed.

This 1998 Annual Report Appendix A-2 contains all changes and updates included in the current "Inventory Guidelines" adopted by ARB in July 1996, and posted on ARB's web site.