LIST OF AIR POLLUTANTS

This list is based on the April 26, 1993 memorandum, "Definition of Regulated Air Pollutant for Purposes of Title V," Lydia Wegman, Deputy Director, United States Environmental Protection Agency (U.S. EPA) Office of Air Quality Planning and Standards. Alternate names are provided for some, but not all, of the air pollutants. Before you determine that an air pollutant is not on this list, you should consult a reference, such as the Merck Index, for alternative names.

Air Pollutants for Determining Title V Applicability

When determining applicability to Title V of the federal Clean Air Act amendments of 1990 (FCAA), you should consider the facility's potential to emit and the major source threshold for any air pollutant on this list except "total suspended particulate." According to an October 16, 1995 U.S. EPA memo, "Definition of Regulated Pollutant for Particulate Matter for Purposes of Title V" (Lydia Wegman), applicability of Title V to sources of particulate matter should be based on the potential to emit particulate matter of ten microns diameter or less (PM10), not the potential to emit total suspended particulate. Also, you should be aware that the U.S. EPA has proposed revisions to the 40 CFR Part 70 Title V regulation (August 31, 1995) which would delete being listed pursuant to Section 112(r) of the FCAA as a criterion for conferring the status of regulated air pollutant for the purposes of Part 70. When this revision is finalized, pollutants listed only in Subsection 5 of the List of Air Pollutants need not be considered when determining potential to emit for Title V applicability.

Air Pollutants for Title V Permit Application

Title V requires that permit applications contain emissions estimates for "major" and "regulated" pollutants. A "major" pollutant is a listed pollutant which a facility has the potential to emit in amounts that equal or exceed the major source threshold. A "regulated" pollutant is a listed pollutant regulated by a federal air quality standard, whether or not such standard applies to the facility in question. For any given facility, a listed air pollutant may be considered "major," "regulated," or both.

With the exception of a few hazardous air pollutants (HAPs) (see Footnote 2), all of the pollutants on this list are considered to be "regulated pollutants." Please note that a HAP that is not regulated by a federal standard per se may be considered "regulated" under two circumstances: 1) when a permitting authority makes a case-by-case determination pursuant to Section 112(g) of the FCAA, or 2) if the U.S. EPA fails to promulgate a maximum achievable control technology (MACT) standard by the scheduled date and a HAP becomes regulated pursuant to Section 112(j). In the case of Section 112(g) determinations, a HAP is regulated only for the source that underwent case-by-case evaluation. In the case of Section 112(j) determinations, a HAP is regulated for all sources in all source categories. As previously mentioned, in future rulemaking, the U.S. EPA may consider Section 112(r) substances not to be

"regulated pollutants" for the purposes of the Part 70 Title V regulation.

A Title V applicant should consult air district staff before providing emissions estimates in the application. According to U.S. EPA guidance [White Paper for Streamlined Development of Part 70 Permit Applications (July 10, 1995), White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program (March 5, 1996)], a Title V applicant may reference readily available emissions data instead of providing detailed emissions estimates. However, such emissions data must be accessible to the public and the district must agree that the data may be referenced.

Fee Pollutants

"Fee pollutants" is a factor used to determine if a facility is required to pay a supplemental annual fee pursuant to Title V permit programs based on the California Air Resources Board model Title V rule. Carbon monoxide is not a fee pollutant for Title V purposes. Also, pollutants regulated solely under Section 112(r) or Title VI (See Subsections 5 and 3, respectively, of this list) of the FCAA are not fee pollutants; however a Section 112(r) or Title VI pollutant that is otherwise regulated (e.g., as a volatile organic compound) would be considered a fee pollutant. In this list, a footnote has been used to designate the non-fee pollutants identified to date.

1. Pollutants for Which National Ambient Air Quality Standards (NAAQS) Have Been Established (Criteria Pollutants)

lead
sulfur dioxide
nitrogen dioxide
carbon monoxide[1]
particulate matter (PM-10)
ozone, including precursors:

- nitrogen oxides (NO, NO2, NO3, N20, N203, N204, N2O5)
- volatile organic compounds (VOC)
  Note: The U.S. EPA has excluded the following organic compounds from the definition of VOC because they have been determined to have negligible photochemical reactivity:
  methane
  ethane
  methylene chloride (dichloromethane)
  1,1,1-trichloroethane (methyl chloroform)
  1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113)
  trichlorofluoromethane (CFC-11)
  dichlorodifluoromethane (CFC-12)
  chlorodifluoromethane (CFC-22)
  trifluoromethane (FC-23)
  1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114)
  chloropentafluoroethane (CFC-115)
  1,1,1-trifluoro 2,2-dichloroethane (HCFC-123)
  1,1,1,2-tetrafluoroethane (HFC-134a)
  1,1-dichloro 1-fluoroethane (HCFC-141b)
  1-chloro 1,1-difluoroethane (HCFC-142b)
  2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
  pentafluoroethane (HFC-125)
  1,1,2,2-tetrafluoroethane (HFC-134)
  1,1,1-trifluoroethane (HFC-143a)
  1,1-difluoroethane (HFC-152a)
  perfluorocarbon compounds which fall into these classes:
  - (i) Cyclic, branched, or linear, completely fluorinated alkanes;
  - (ii) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
  - (iii) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
  - (iv) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

  acetone
  parachlorobenzotrifluorides
  perchloroethylene
  volatile methyl siloxanes

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2. As of May 1996, this air pollutant was not regulated by a federal standard and need not be included in a Title V application or report, unless: 1) the facility is a major source of the pollutant, 2) the pollutant is considered to be regulated for a single source pursuant to Section 112(g) of the FCAA, or 3) the pollutant is considered to be regulated for all sources because Section 112(j) of the FCAA has been triggered.

2. Pollutants Regulated Under New Source Performance Standards (NSPS)

Criteria pollutants (see Subsection 1.)
cadmium
dioxin/furan (defined in 40 CFR 60.53a to mean total tetra through octachlorinated dibenzo-p-dioxins and dibenzofurans)
fluorides
hydrogen chloride
hydrogen sulfide (H2S)
mercury
sulfuric acid mist
total reduced sulfur
reduced sulfur compounds
total suspended particulate (Title V applicability is determined on the basis of potential to emit PM-10)
non-methane organic compounds (as measured according to the test methods and procedures of Part 60.754 of Subpart WWW)

3. Stratospheric Ozone Depleters Regulated Under Title VI of the Clean Air Act

Class I Stratospheric Ozone Depleters

carbon tetrachloride chlorofluorocarbon-11 (CFC-11)
chlorofluorocarbon-12 (CFC-12) [1]
chlorofluorocarbon-13 (CFC-13)
chlorofluorocarbon-111 (CFC-111)
chlorofluorocarbon-112 (CFC-112)
chlorofluorocarbon-113 (CFC-113) [1]
chlorofluorocarbon-114 (CFC-114) [1]
chlorofluorocarbon-115 (CFC-115) [1]
chlorofluorocarbon-211 (CFC-211)
chlorofluorocarbon-212 (CFC-212)
chlorofluorocarbon-213 (CFC-213)
chlorofluorocarbon-214 (CFC-214)
chlorofluorocarbon-215 (CFC-215)
chlorofluorocarbon-216 (CFC-216)
chlorofluorocarbon-217 (CFC-217)
halon-1211
halon-1301
halon-2402
methyl chloroform
methyl bromide

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Class II Stratospheric Ozone Depleters:

hydrochlorofluorocarbon-21 (HCFC-21)
hydrochlorofluorocarbon-22 (HCFC-22)
hydrochlorofluorocarbon-31 (HCFC-31)
hydrochlorofluorocarbon-121 (HCFC-121)
hydrochlorofluorocarbon-122 (HCFC-122)
hydrochlorofluorocarbon-123 (HCFC-123)
hydrochlorofluorocarbon-124 (HCFC-124) [1]
hydrochlorofluorocarbon-131 (HCFC-131)
hydrochlorofluorocarbon-132 (HCFC-132)
hydrochlorofluorocarbon-133 (HCFC-133)
hydrochlorofluorocarbon-141 (HCFC-141) [1]
hydrochlorofluorocarbon-142 (HCFC-142) [1]
hydrochlorofluorocarbon-221 (HCFC-221)
hydrochlorofluorocarbon-222 (HCFC-222)
hydrochlorofluorocarbon-223 (HCFC-223)
hydrochlorofluorocarbon-224 (HCFC-224)
hydrochlorofluorocarbon-225 (HCFC-225)
hydrochlorofluorocarbon-226 (HCFC-226)
hydrochlorofluorocarbon-231 (HCFC-231)
hydrochlorofluorocarbon-232 (HCFC-232)
hydrochlorofluorocarbon-233 (HCFC-233)
hydrochlorofluorocarbon-234 (HCFC-234)
hydrochlorofluorocarbon-235 (HCFC-235)
hydrochlorofluorocarbon-241 (HCFC-241)
hydrochlorofluorocarbon-242 (HCFC-242)
hydrochlorofluorocarbon-243 (HCFC-243)
hydrochlorofluorocarbon-244 (HCFC-244)
hydrochlorofluorocarbon-251 (HCFC-251)
hydrochlorofluorocarbon-252 (HCFC-252)
hydrochlorofluorocarbon-253 (HCFC-253)
hydrochlorofluorocarbon-261 (HCFC-261)
hydrochlorofluorocarbon-262 (HCFC-262)
hydrochlorofluorocarbon-271 (HCFC-271)

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4. Hazardous Air Pollutants Under Section 112 of the Clean Air Act

Chemical Abstract Service (CAS) Number	Chemical Name
	A
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
	B
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
	C
156627	Calcium cyanamide [1,2]
~~105602~~	~~Caprolactam~~ (the U.S. EPA delisted June 18, 1996)
133062	Captan
63252	Carbaryl [1,2]
75150	Carbon disulfide

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Chemical Abstract Service (CAS) Number	Chemical Name
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine [1]
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
	D
94757	2,4-D (2,4-Dichlorophenoxyacetic acid, including salts and esters)
72559	DDE (1,1-dichloro-2,2-bis(p-chlorophenyl) ethylene)
334883	Diazomethane
132649	Dibenzofuran
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene
91941	3,3'-Dichlorobenzidine
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Dimethylaniline
64675	Diethyl sulfate

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Chemical Abstract Service (CAS) Number	Chemical Name
119904	3,3'-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3',-Dimethylbenzidine
79447	Dimethylcarbamoyl chloride
68122	N,N-Dimethylformamide
57147	1,1-Dimethylhydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
	E
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethylbenzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethyleneimine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
	F
50000	Formaldehyde
	H
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene

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Chemical Abstract Service (CAS) Number	Chemical Name
	1,2,3,4,5,6-Hexachlorocyclohexane (all stereoisomers, including lindane)
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid (hydrogen chloride)(gas only)
7664393	Hydrogen fluoride (Hydrofluoric acid) [1,2]
123319	Hydroquinone
	I
78591	Isophorone
	M
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor [1,2]
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methylhydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert-butyl ether
101144	4,4'-Methylenebis (2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	4-4' Methylenediphenyl diisocyanate (MDI)
101779	4,4,-Methylenedianiline
	N
91203	Naphthalene

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Chemical Abstract Service (CAS) Number	Chemical Name
91203	Nitrobenzene
98983	4-Nitrobiphenyl
92933	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
	P
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine [1,2]
7723140	Phosphorus [1,2]
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
	Q
91225	Quinoline
106514	Quinone
	S
100425	Styrene
96093	Styrene oxide

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Chemical Abstract Service (CAS) Number	Chemical Name
	T
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride[1]
108883	Toluene
95807	2,4-Toluenediamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
	V
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride
	X
1330207	Xylenes (isomers and mixture)
95476	o-Xylene
108383	m-Xylene
106423	p-Xylene

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Groups of Hazardous Air Pollutants

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.

Antimony Compounds
Arsenic Compounds (inorganic inclucing arsine)
Beryllium Compounds
Cadmium Compounds
Chromium Compounds
Cobalt Compounds
Coke Oven Emissions
Cyanide Compounds [a] [1,2]
Glycol ethers [b]
Lead Compounds
Manganese Compounds
Mercury Compounds
Fine mineral fibers [c] [1,2]
Nickel Compounds
Polycyclic Organic Matter [e]
Radionuclides (including radon) [d]
Selenium Compounds

Notes:

a) X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN) 2

b) 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-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

c) Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral-derived fibers) of averaqe diameter 1 micrometer or less.

d) A type of atom which spontaneously undergoes radioactive decay.

e) Limited to, or refers to, products from incomplete combustion of organic compounds (or

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material) and pyrolysis processes having more than one benzene ring, and which have a boiling point greater than or equal to 100°C; including but not limited to the following:

CAS	Chemical Name
35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
67562394	1,2,3,4,6,7,8-Heptachlorodibenzofuran
55673897	1,2,3,4,7,8,9-Heptachlorodibenzofuran
39227286	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran
57653857	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
57117449	1,2,3,6,7,8-Hexachlorodibenzofuran
19408743	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
72918219	1,2,3,7,8,9-Hexachlorodibenzofuran
40321764	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
57117416	1,2,3,7,8-Pentachlorodibenzofuran
122667	1,2-Diphenylhydrazine{Hydrazobenzene}
42397648	1,6-Dinitropyrene
42397659	1,8-Dinitropyrene
82280	1-Amino-2-methylanthraquinone [PAH- Derivative]
134327	1-Naphthylamine
5522430	1-Nitropyrene
60851345	2,3,4,6,7,8 Hexachlorodibenzofuran
57117314	2,3,4,7,8-Pentachlorodibenzofuran
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin {TCDD}
51207319	2,3,7,8-Tetrachlorodibenzofuran
53963	2-Acetylaminofluorene
117793	2-Aminoanthraquinone
129157	2-Methyl-1-nitroanthraquinone (uncertain purity)
91598	2-Naphthylamine
607578	2-Nitrofluorene
90437	2-Phenylphenol
28434868	3,3[1]-Dichloro-4,4[1]-diaminodiphenyl ether
91941	3,3[1]-Dichlorobenzidine
119904	3,3[1]-Dimethoxybenzidine
20325400	3,3[1]-Dimethoxybenzidine dihydrochloride
119937	3,3[1]-Dimethylbenzidine {o-Tolidine}
6109973	3-Amino-9-ethylcarbazole hydrochloride
56495	3-Methylcholanthrene
101804	4,4[1]-Diaminodiphenyl ether
80057	4,4[1]-Isopropylidenediphenol
101611	4,4[1]-Methylene bis (N,N-dimethyl benzenamine
101144	4,4[1]-Methylene bis(2-chloroaniline) {MOCA}
838880	4,4[1]-Methylene bis(2-methylaniline)
101779	4,4[1]-Methylenedianiline (and its dichloride)
139651	4,4[1]-Thiodianiline
92671	4-Aminobiphenyl
60117	4-Dimethylaminoazobenzene
92933	4-Nitrobiphenyl
57835924	4-Nitropyrene
3697243	5-Methylchrysene
602879	5-Nitroacenaphthene
7496028	6-Nitrochrysene
57976	7,12-Dimethylbenz[a]anthracene
83329	Acenaphthene
208968	Acenaphthylene
62476599	Acifluorfen
23214928	Adriamycin
28981977	Alprazolam
120127	Anthracene
492808	Auramine
103333	Azobenzene
56553	Benz[a]anthracene
92875	Benzidine (and its salts)
1020	Benzidine-based dyes
50328	Benzo[a]pyrene
205992	Benzo[b]fluoranthene
191242	Benzo[g,h,i]perylene
205823	Benzo[j]fluoranthene
207089	Benzo[k]fluoranthene
5411223	Benzphetamine hydrochloride
1694093	Benzyl violet 4B
92524	Biphenyl
4680788	C. I. Acid Green 3
569642	C. I. Basic Green 4
989388	C. I. Basic Red 1
569619	C. I. Basic Red 9 monohydrochloride
2832408	C. I. Disperse Yellow 3
63252	Carbaryl
1620219	Chlorcyclizine hydrochloride
510156	Chlorobenzilate {Ethyl-4,4[1]-dichlorobenzilate}
218019	Chrysene
87296	Cinnamyl anthranilate
6358538	Citrus Red No. 2
50419	Clomiphene citrate
3468631	D and C Orange No. 17
81889	D and C Red No. 19
2092560	D and C Red No. 8
5160021	D and C Red No. 9
20830813	Daunomycin
23541506	Daunorubicin hydrochloride

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50293	DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane}
1163195	Decabromodiphenyl oxide
226368	Dibenz[a,h]acridine
53703	Dibenz[a,h]anthracene
224420	Dibenz[a,j]acridine
192654	Dibenzo[a,e]pyrene
189640	Dibenzo[a,h]pyrene
189559	Dibenzo[a,i]pyrene
191300	Dibenzo[a,l]pyrene
132649	Dibenzofuran
	Dibenzofurans (chlorinated) (see Polychlorinated dibenzofurans)
	Dibenzofurans (Polychlorinated dibenzofurans) {PCDFs}
72548	Dichlorodiphenyldichloroethane {DDD}
72559	Dichlorodiphenyldichloroethylene {DDE}
115322	Dicofol
84173	Dienestrol
56531	Diethylstilbestrol
630933	Diphenylhydantoin
1937377	Direct Black 38
2602462	Direct Blue 6
16071866	Direct Brown 95 (technical grade)
2475458	Disperse Blue 1
379793	Ergotamine tartrate
33419420	Etoposide
206440	Fluoranthene
86737	Fluorene
23092173	Halazepam
1335871	Hexachloronaphthalene
193395	Indeno[1,2,3-cd]pyrene
77501634	Lactofen
846491	Lorazepam
72435	Methoxychlor
101688	Methylene diphenyl diisocyanate {MDI}
90948	Michler's ketone
59467968	Midazolam hydrochloride
70476823	Mitoxantrone hydrochloride
613354	N,N[1]-Diacetylbenzidine
494031	N-N-Bis(2-chloroethyl)-2-naphthylamine {Chlornaphazine}
86306	N-Nitrosodiphenylamine
86220420	Nafarelin acetate
3771195	Nafenopin
91203	Naphthalene
97563	o-Aminoazotoluene
303479	Ochratoxin A
2234131	Octachloronaphthalene
2646175	Oil Orange SS
156105	p-Nitrosodiphenylamine
	PAH-Derivatives (Polycyclic aromatic hydrocarbon derivatives designation)
	PAHs (Polycyclic aromatic hydrocarbons)
	PAHs, total, w/o individ. components reported
	PAHs, total, with individ. components also reported
1336363	PCBs (Polychlorinated biphenyls)
59961	Phenoxybenzamine
63923	Phenoxybenzamine hydrochloride
57410	Phenytoin
18378897	Plicamycin
1155	Polybrominated biphenyls {PBBs}
	Polychlorinated dibenzo-p-dioxins {PCDDs or Dioxins}
	Polychlorinated dibenzofurans {PCDFs or Dibenzofurans}
1156	POM (Polycyclic organic matter)
3564098	Ponceau 3R
3761533	Ponceau MX
129000	Pyrene
50555	Reserpine
132274	Sodium o-phenylphenate
10048132	Sterigmatocystin
54965241	Tamoxifen citrate
846504	Temazepam
28911015	Triazolam
78308	Triorthocresyl phosphate
115866	Triphenyl phosphate
101020	Triphenyl phosphite
72571	Trypan blue
143679	Vinblastine sulfate
2068782	Vincristine sulfate
81812	Warfarin

CAS	**Chemical Name**
60093	p-Aminoazobenzene {4-Aminoazobenzene}

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5. Pollutants Regulated Under Section 112(r):

The Section 112(r) Accidental Release Prevention and Management Program affects sources at which any of the substances listed below are present above the specified annual threshold. No source is required to apply for a Title V permit solely because it is subject to Section 112(r). However, under the July 21, 1992 final 40 CFR Part 70 regulation, a source with the potential to emit 100 tons per year or more of a Section 112(r) substance (i.e., produces, processes or transfers the substance) is required to obtain a Title V permit because it is considered a major source. A source that simply stores a Section 112(r) substance is not considered to have the potential to emit that substance. The U.S. EPA has proposed revisions to 40 CFR Part 70 (August 31, 1995) whereby pollutants which are regulated solely under Section 112(r) need not be considered at all when determining potential to emit for Title V applicability. The U.S. EPA has also proposed revisions to modify threshold provisions of certain flammables and to modify the definition of stationary source with respect to transportation, storage incident to transportation, and naturally occurring hydrocarbon reservoirs (April 15, 1996, FR 16606).

LIST OF REGULATED TOXIC, AND FLAMMABLE SUBSTANCES AND THRESHOLD QUANTITIES FOR ACCIDENTAL RELEASE PREVENTION*
*Based on 40 CFR Part 68 January 31, 1994 (FR 4478)

	Chemical Name	CAS No.	Threshold Quantity (lbs)
A			
	Acetaldehyde	75-07-0	10,000
	Acetylene [Ethyne]	74-86-2	10,000
	Acrolein [2-Propenal]	107-02-8	5,000
	Acrylonitrile [2-Propenenitrile]	107-13-1	20,000
	Acrylyl chloride [2-Propenoyl chloride]	814-68-6	5,000
	Allyl alcohol [2-Propen-l-ol]	107-18-6	15,000
	Allylamine [2-Propen-1-amine]	107-11-9	10,000
	Ammonia (anhydrous)	7664-41-7	10,000
	Ammonia (conc 20% or greater)	7664-41-7	20,000
	Arsenous trichloride	7784-34-1	15,000
	Arsine	7784-42-1	1,000
B			
	Boron trichloride [Borane, trichloro-]	10294-34-5	5,000
	Boron trifluoride [Borane, trifluoro-]	7637-07-2	5,000
	Boron trifluoride compound with methyl ether(1:1) [Boron, trifluoro[oxybis[metane]]-, T-4	353-42-4	15,000
	Bromine	7726-95-6	10,000
	Bromotrifluorethylene [Ethene, bromotrifluoro-]	598-73-2	10,000
	1,3-Butadiene	106-99-0	10,000
	Butane	106-97-8	10,000

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1-Butene	106-98-9	10,000
2-Butene	107-01-7	10,000
Butene	25167-67-3	10,000
2-Butene-cis	590-18-1	10,000
2-Butene-trans [2-Butene, (E)]	624-64-6	10,000
C		
Carbon disulfide	75-15-0	20,000
Carbon oxysulfide [Carbon oxide sulfide (COS)]	463-58-1	10,000
Chlorine	7782-50-5	2,500
Chlorine dioxide [Chlorine oxide (C102)]	10049-04-4	1,000
Chlorine monoxide [Chlorine oxide]	7791-21-1	10,000
Chloroform [Methane, trichloro-]	67-66-3	20,000
Chloromethyl ether [Methane, oxybis[chloro-]	542-88-1	1,000
Chloromethyl methyl ether [Methane, chloromethoxy-]	107-30-2	5,000
2-Chloropropylene [1-Propene, 2-chloro-]	557-98-2	10,000
l-Chloropropylene [l-Propene, l-chloro-]	590-21-6	10,000
Crotonaldehyde [2-Butenal]	4170-30-3	20,000
Crotonaldehyde, (E)- [2-Butenal, (E)-]	123-73-9	20,000
Cyanogen [Ethanedinitrile]	460-19-5	10,000
Cyanogen chloride	506-77-4	10,000
Cyclohexylamine [Cyclohexanamine]	108-91-8	15,000
Cyclopropane	75-19-4	10,000
D		
Diborane	19287-45-7	2,500
Dichlorosilane [Silane, dichloro-]	4109-96-0	10,000
Difluoroethane [Ethane, l,l-difluoro-]	75-37-6	10,000
Dimethyldichlorosilane [Silane, dichlorodimethyl-]	75-78-5	5,000
1,1 -Dimethylhydrazine [Hydrazine, l, l-dimethyl-]	57-14-7	15,000
Dimethylamine [Methanamine, N-methyl-]	124-40-3	10,000
2,2-Dimethylpropane [Propane, 2,2-dimethyl-]	463-82-1	10,000
E		
Epichlorohydrin [Oxirane, (chloromethyl)-]	106-89-8	20,000

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	Chemical Name	CAS No.	Threshold Quantity (lbs)
	Ethane	74-84-0	10,000
	Ethyl acetylene [1 -Butyne]	107-00-6	10,000
	Ethylamine [Ethanamine]	75-04-7	10,000
	Ethyl chloride [Ethane, chloro-]	75-00-3	10,000
	Ethylene [Ethene]	74-85-1	10,000
	Ethylenediamine [1,2-Ethanediamine]	107-15-3	20,000
	Ethyleneimine [Aziridine] 1	151-56-4	10,000
	Ethylene oxide [Oxirane]	75-21-8	10,000
	Ethyl ether [Ethane, 1, 1 '-oxybis-]	60-29-7	10,000
	Ethyl mercaptan [Ethanethiol]	75-08-1	10,000
	Ethyl nitrite [Nitrous acid, ethyl ester]	109-95-5	10,000
F			
	Fluorine	7782-41-4	1,000
	Formaldehyde (solution)	50-00-0	15,000
	Furan	110-00-9	5,000
H			
	Hydrazine	302-01-2	15,000
	Hydrochloric acid (conc 30% or greater)	7647-01-0	15,000
	Hydrocyanic acid	74-90-8	2,500
	Hydrogen	1333-74-0	10,000
	Hydrogen chloride (anhydrous) [Hydrochloric acid]	7647-01-0	5,000
	Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]	7664-39-3	1,000
	Hydrogen selenide	7783-07-5	500
	Hydrogen sulfide	7783-06-4	10,000
I			
	Iron, pentacarbonyl- [Iron carbonyl (Fe(CO)5), (TB-5-11)-]	13463-40-6	2,500
	Isobutane [Propane, 2-methyl]	75-28-5	10,000
	Isobutyronitrile [Propanenitrile, 2-methyl-]	78-82-0	20,000
	Isopentane [Butane, 2-methyl-]	78-78-4	10,000
	Isoprene [1,3-Butadiene, 2-methyl-]	78-79-5	10,000
	Isopropylamine [2-Propanamine]	75-31-0	10,000
	Isopropyl chloride [Propane, 2-chloro-]	75-29-6	10,000

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	Chemical Name	CAS No.	Threshold Quantity (lbs)
	Isopropyl chloroformate [Carbonochloridic acid, 1-methylethyl ester]	108-23-6	15,000
M			
	Methacrylonitrile [2-Propenenitrile, 2-methyl-]	126-98-7	10,000
	Methane	74-82-8	10,000
	Methylamine [Methanamine]	74-89-5	10,000
	3-Methyl- 1 -butene	563-4S-1	10,000
	2-Methyl- 1 -butene	563-46-2	10,000
	Methyl chloride [Methane, chloro-]	74-87-3	10,000
	Methyl chloroformate [Carbonochloridic acid, methylester]	79-22-1	5,000
	Methyl ether [Methane, oxybis-]	115-10-6	10,000
	Methyl formate [Formic acid, methyl ester]	107-31-3	10,000
	Methyl hydrazine [Hydrazine, methyl-]	60-34-4	15,000
	Methyl isocyanate [Methane, isocyanato-]	624-83-9	10,000
	Methyl mercaptan [Methanethiol]	74-93-1	10,000
	2-Methylpropene [I -Propene, 2-methyl-]	115-11-7	10,000
	Methyl thiocyanate [Thiocyanic acid, methyl ester]	556-64-9	20,000
	Methyltrichlorosilane [Silane, trichloromethyl-]	75-79-6	5,000
N			
	Nickel carbonyl	13463-39-3	1,000
	Nitric acid (conc 80% or greater)	7697-37-2	15,000
	Nitric oxide [Nitrogen oxide (NO)]	10102-43-9	10,000
O			
	Oleum (Fuming Sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide]	8014-95-7	10,000
P			
	1,3-Pentadiene	504-60-9	10,000
	Pentane	109-66-0	10,000
	1-Pentene	109-67-1	10,000
	2-Pentene, (E)-	646-04-8	10,000
	2-Pentene, (Z)-	627-20-3	10,000

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	Chemical Name	CAS No.	Threshold Quantity (lbs)
	Peracetic acid [Ethaneperoxoic acid]	79-21-0	10,000
	Perchloromethylmercaptan [Methanesulfenyl chloride, trichloro-]	594-42-3	10,000
	Phosgene [Carbonic dichloride]	75-44-5	500
	Phosphine	7803-51-2	5,000
	Phosphorus oxychloride [Phosphoryl chloride]	10025-87-3	5,000
	Phosphorus trichloride [Phosphorous trichloride]	7719-12-2	15,000
	Piperidine	110-89-4	15,000
	Propadiene [1,2-Propadiene]	463-49-0	10,000
	Propane	74-98-6	10,000
	Propionitrile [Propanenitrile]	107-12-0	10,000
	Propyl chloroformate [Carbonochloridic acid, propylester]	109-61-5	15,000
	Propylene [1 -Propene]	115-07-1	10,000
	Propyleneimine [Aziridine, 2-methyl-]	75-55-8	10,000
	Propylene oxide [Oxirane, methyl-]	75-56-9	10,000
	Propyne [1 -Propyne]	74-99-7	10,000
S			
	Silane	7803-62-5	10,000
	Sulfur dioxide (anhydrous)	7446-09-5	5,000
	Sulfur tetrafluoride [Sulfur fluoride (SF4), (T-4)-]	7783-60-0	2,500
	Sulfur trioxide	7446-11-9	10,000
T			
	Tetrafluoroethylene [Ethene, tetrafluoro-]	116-14-3	10,000
	Tetramethylead [Plumbane, tetramethyl-]	75-74-1	10,000
	Tetramethylsilane [Silane, tetramethyl-]	75-76-3	10,000
	Tetranitromethane [Methane, tetranitro-]	509-14-8	10,000
	Titanium tetrachloride [Titanium chloride (TiC14) (T-4)] 1	7550-45-0	2,500
	Toluene 2,4-diisocyanate [Benzene, 2,4 diisocyanato- 1 -methyl-]	584-84-9	10,000
	Toluene 2,6-diisocyanate [Benzene, 1,3 -diisocyanato-2-methyl-]	91-08-7	10,000
	Toluene diisocyanate (unspecified isomer) [Benzene, 1,3 -diisocyanatomethyl-]	26471-62-5	10,000
	Trichlorosilane [Silane, trichloro-]	10025-78-2	10,000

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Trifluorochloroethylene [Ethene, chlorotrifluoro-]	79-38-9	10,000
Trimethylamine [Methanamine, N,N-dimethyl-]	75-50-3	10,000
Trimethylchlorosilane [Silane, chlorotrimethyl-]	75-77-4	10,000

V

Vinyl acetate monomer [Acetic acid ethenyl ester]	108-05-4	15,000
Vinyl acetylene [l-Buten-3-yne]	689-97-4	10,000
Vinyl chloride [Ethene, chloro-]	75-01-4	10,000
Vinyl ethyl ether [Ethene, ethoxy-]	109-92-2	10,000
Vinyl fluoride [Ethene, fluoro-]	75-02-5	10,000
Vinylidene chloride [Ethene, 1,1-dichloro-]	75-35-4	10,000
Vinylidene fluoride [Ethene, 1,1-difluoro-]	75-38-7	10,000
Vinyl methyl ether [Ethene, methoxy-]	107-25-5	10,000

LIST OF REGULATED EXPLOSIVES FOR ACCIDENTAL RELEASE PREVENTION
Refer to 49 CFR Part 172 Division 1.1 Explosives. At this writing, the U.S.EPA has proposed to delete explosives from the Section 112(r) list of substances (April 15, 1996, FR 16606).

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