Chapter NR 438

AIR CONTAMINANT EMISSION INVENTORY REPORTING REQUIREMENTS

NR 438.01 Applicability; purpose
NR 438.02 Definitions
NR 438.03 Required emission inventory reports
NR 438.04 Content of emission inventory reports

NR 438.01 Applicability; purpose. (1) APPLICABILITY. This chapter applies to all air contaminant sources and to their owners and operators.

(2) PURPOSE. The purpose of this chapter is to establish, pursuant to ss. 144.31 (1) (a), 144.38, and 144.96 (1) and (2), Stats., requirements for submission of reports for owners or operators of air contaminant sources.

History: Cr. Register, May, 1993, No. 449, eff. 6-1-93.

NR 438.02 Definitions. The definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

(1) "Facility" means all stationary sources emitting air contaminants which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person, or persons under common control. Emissions resulting from loading, unloading or stockpiling materials to or from vessels or vehicles while at a facility shall be considered as part of the facility's emissions. Air contaminant sources, other than transportation related activities, shall be considered as part of the same industrial grouping if they are classified under the same 2-digit major group as described in the Standard Industrial Classification Manual, 1987, incorporated by reference in ch. NR 484.

(2) "Source classification code" means an 8-position code which represents a process or function associated with a point of air contaminant emissions, as set forth in the AIRS Facility Subsystem Source Class Codes and Emission Factors, EPA 450/4-90-003, March, 1990, incorporated by reference in ch. NR 484.

History: Cr. Register, May, 1993, No. 449, eff. 6-1-93.

NR 438.03 Required emission inventory reports. (1) REPORTABLE AIR CONTAMINANTS AND LEVELS. (a) Any person owning or operating a facility which emits an air contaminant in quantities above the reporting levels listed in Table 1, except indirect sources of air pollution, shall annually submit to the department an emission inventory report of annual, actual emissions or, for particulate matter, PM^{10}, sulfur dioxide, nitrogen oxides, carbon monoxide and volatile organic compounds, throughput information sufficient for the department to calculate its annual, actual emissions.

(b) When preparing its emission inventory report, the owner or operator of a facility may rely on information in an approved material safety data sheet. Trace contaminants need not be reported if they constitute less than 1% of the material, or 0.1% of the material if the air contaminant is footnoted as a suspected or confirmed human carcinogen by the American conference of governmental industrial hygienists in the 1990-

1991 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, incorporated by reference in s. NR 484.05 (8).

(c) Notwithstanding par. (a), the department may require any facility to submit an emission inventory report of its annual, actual and maximum theoretical air contaminant emissions.

(d) Any facility that has emission reduction credits shall report the credits separately as actual emissions on the annual emission inventory report.

Table 1

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Acetaldehyde	75-07-0	6,000
Acetamide	60-35-5	6,000
Acetic acid	64-19-7	6,000
Acetic anhydride	108-24-7	4,436
Acetonitrile	75-05-8	6,000
Acetophenone	98-86-2	6,000
2-Acetylaminofluorene	53-96-3	6,000
Acrolein	107-02-8	91
Acrylamide	79-06-1	105
Acrylic acid	79-10-7	6,000
Acrylonitrile	107-13-1	12
Adriamycin	23214-92-8	12
Aflatoxins	1402-68-2	12
Aldrin	309-00-2	91
Allyl alcohol	107-18-6	1,829
Allyl chloride	107-05-1	1,093
Aluminum alkyls	7429-90-5[2]	725
Aluminum pyro powders	7429-90-5[2]	1,829
Aluminum soluble salts	7429-90-5[2]	725
2-Aminoanthraquinone	117-79-3	125
4-Aminobiphenyl	92-67-1	12
Amitrole	61-82-5	73
[3]Ammonia	7664-41-7	6,000
Aniline	62-53-3	3,648
Anisidine	29191-52-4	125
o-Anisidine and o-anisidine hydrochloride	90-04-0[2]	125
Antimony & compounds, as Sb	7440-36-0[2]	179
ANTU	86-88-4	105
Arsenic and inorganic compounds, as As	7440-38-2[2]	12
[3]Arsine	7784-42-1	73
Asbestos, all forms	1332-21-4[2]	12
Atrazine	1912-24-9	1,829
Azathioprine	446-86-6	12
Azinphos-methyl	86-50-0	73
Barium, soluble compounds, as Ba	7440-39-3[2]	179
Benomyl	17804-35-2	3,648
Benz(a)anthracene	56-55-3	12
Benzene	71-43-2	150
Benzidine	92-87-5	1.0
Benzo(b)fluoranthene	205-99-2	12
Benzo(j,k)fluorene	206-44-0	12
Benzo(a)phenanthrene	218-01-9	12

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Benzo(a)pyrene	50-32-8	12
Benzotrichloride	98-07-7	125
Benzoyl peroxide	94-36-0	1,829
Benzyl chloride	100-44-7	1,829
Beryllium and beryllium compounds, as Be	7440-41-7[2]	12
Biphenyl	92-52-4	547
N,N-Bis (2-chloroethyl)-2-naphthylamine (Chloronaphazine)	494-03-1	12
Bischloroethyl nitrosourea	154-93-8	12
Bis(chloromethyl) ether (BCME) and technical grade	542-88-1	0.050
Borates, tetra, sodium salts, decahydrate	1303-96-4[2]	1,829
Borates, tetra, sodium salts, pentahydrate	1303-96-4[2]	368
Boron tribromide	10294-33-4	2,218
[3]Boron trifluoride	7637-07-2	662
Bromacil	314-40-9	3,648
[3]Bromine	7726-95-6	252
[3]Bromine pentafluoride	7789-30-2	252
Bromoform	75-25-2	6,000
1,3-Butadiene	106-99-0	6,000
1,4-Butanediol dimethanesulphonate (Myleran)	55-98-1	12
2-Butoxyethanol (EGBE)	111-76-2	6,000
n-Butyl acrylate	141-32-2	6,000
n-Butyl alcohol	71-36-3	6,000
n-Butylamine	109-73-9	3,332
tert-Butyl chromate, as Cr	1189-85-1	0.050
n-Butyl glycidyl ether (BGE)	2426-08-6	6,000
n-Butyl lactate	138-22-7	6,000
o-sec-Butylphenol	89-72-5	6,000
p-tert-Butyltoluene	98-51-1	6,000
Cadmium and cadmium compounds, as Cd	7440-43-9[2]	12
Calcium cyanamide	156-62-7	179
Calcium hydroxide	1305-62-0	1,829
Calcium oxide	1305-78-8	725
Camphor (synthetic)	76-22-2	4,373
Caprolactam vapor	105-60-2	6,000
Captafol	2425-06-1	37
Captan	133-06-2	1,829
Carbaryl	63-25-2	1,829
Carbofuran	1563-66-2	37
Carbon black	1333-86-4	1,272
Carbon dioxide	124-38-9	100,000 tons
Carbon disulfide	75-15-0	6,000
Carbon monoxide	630-08-0	10,000
Carbon tetrabromide	558-13-4	515
Carbon tetrachloride	56-23-5	12
Carbonyl fluoride	353-50-4	1,829
Carbonyl sulfide	463-58-1	6,000
Catechol (Pyrocatechol)	120-80-9	6,000
Cesium hydroxide	21351-79-1	725

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Chloramben	133-90-4	6,000
Chlorambucil	305-03-3	12
Chlordane	57-74-9	179
Chlorinated camphene	8001-35-2	179
Chlorinated dioxins and furans (total equivalents)	[2]	0.00005
Chlorinated diphenyl oxide	55720-99-5	179
[3]Chlorine	7782-50-5	1,093
[3]Chlorine dioxide	10049-04-4	105
[3]Chlorine trifluoride	7790-91-2	88
Chloroacetic acid	79-11-8	6,000
2-Chloroacetophenone	532-27-4	6,000
Chlorobenzene (Monochlorobenzene)	108-90-7	6,000
Chlorobenzilate	510-15-6	6,000
1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	13010-47-4	12
[3]Chlorofluorocarbon-11 (CFC-11, R-11, Trichlorofluoromethane)	75-69-4	6,000
[3]Chlorofluorocarbon-12 (CFC-12, R-12, Dichlorodifluoromethane)	75-71-8	6,000
[3]Chlorofluorocarbon-13 (CFC-13, R-13, Chlorotrifluoromethane)	75-72-9	6,000
[3]Chlorofluorocarbon-111 (CFC-111)		6,000
[3]Chlorofluorocarbon-112 (CFC-112)	76-12-0	6,000
[3]Chlorofluorocarbon-113 (CFC-113, R-113, Trichlorotrifluoroethane)	76-13-1	6,000
[3]Chlorofluorocarbon-114 (CFC-114, R-114, Dichlorotetrafluoroethane)	76-14-2	6,000
[3]Chlorofluorocarbon-115 (CFC-115, R-115, Monochloropentafluoroethane)	76-15-3	6,000
[3]Chlorofluorocarbon-211 (CFC-211, R-211)		6,000
[3]Chlorofluorocarbon-212 (CFC-212, R-212)		6,000
[3]Chlorofluorocarbon-213 (CFC-213, R-213)		6,000
[3]Chlorofluorocarbon-214 (CFC-214, R-214)		6,000
[3]Chlorofluorocarbon-215 (CFC-215, R-215)		6,000
[3]Chlorofluorocarbon-216 (CFC-216, R-216)		6,000
[3]Chlorofluorocarbon-217 (CFC-217, R-217)		6,000
Chloroform	67-66-3	125
Chloromethyl methyl ether (CMME)	107-30-2	0.050
1-Chloro-1-nitropropane	600-25-9	3,648
Chloropicrin (Trichloronitromethane)	76-06-2	252
beta-Chloroprene	126-99-8	6,000
o-Chlorostyrene	2039-87-4	6,000
o-Chlorotoluene	95-49-8	6,000
Chlorpyrifos	2921-88-2	73
Chromium (II) compounds, as Cr	7440-47-3[2]	179
Chromium (III) compounds, as Cr	7440-47-3[2]	179
Chromium (VI) compounds, as Cr, water soluble	7440-47-3[2]	18
Chromium (VI) compounds, as Cr, water insoluble	7440-47-3[2]	1.0
Chromium (metal)	7440-47-3	179
Chromyl chloride, as Cr	14977-61-8	0.050
Cobalt, as Co, metal, dust	7440-48-4	18
[3]Coke oven emissions	[2]	12
Copper, dust & mists, as Cu	7440-50-8	368
p-Cresidine	120-71-8	125
Cresol, all isomers	1319-77-3	6,000

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
m-Cresol	108-39-4	6,000
o-Cresol	95-48-7	6,000
p-Cresol	106-44-5	6,000
Crotonaldehyde	123-73-9[2]	2,943
Crufomate	299-86-5	1,829
Cumene	98-82-8	6,000
Cyanamide	420-04-2	725
Cyanides, (inorganics), as CN	143-33-9[2]	1,829
Cyanogen	460-19-5	6,000
Cyanogen chloride	506-77-4	137
Cyclohexanol	108-93-0	6,000
Cyclohexanone	108-94-1	6,000
Cyclohexylamine	108-91-8	6,000
Cyclopentadiene	542-92-7	6,000
Cyclophosphamide	50-18-0	12
Cyhexatin	13121-70-5	1,829
2,4-D, salts and esters	94-75-7	6,000
DDE	3547-04-4	6,000
Dacarbazine	4342-03-4	12
Demeton	8065-48-3	37
Diacetone alcohol	123-42-2	6,000
2,4-Diaminoanisole sulfate	39156-41-7	125
2,4-Diaminotoluene	95-80-7[2]	125
Diazinon	333-41-5	37
Diazomethane	334-88-3	147
Dibenz(a,h)acridine	226-36-8	12
Dibenz(a,j)acridine	224-42-0	12
Dibenz(a,h)anthracene	53-70-3	12
7H-Dibenzo(c,g)carbazole	194-59-2	12
Dibenzofurans	132-64-9	6,000
Dibenzo(a,h)pyrene	189-64-0	12
Dibenzo(a,i)pyrene	189-55-9	12
[2]Diborane	19287-45-7	37
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	125
1,2-Dibromoethane (EDB)	106-93-4	125
2-N-Dibutylaminoethanol	102-81-8	5,109
Dibutyl phthalate	84-74-2	1,829
o-Dichlorobenzene	95-50-1	6,000
p-Dichlorobenzene	106-46-7	6,000
3,3'-Dichlorobenzidine	91-94-1	125
1,3-Dichloro-5,5-dimethyl hydantoin	118-52-5	73
1,1-Dichloroethane	75-34-3	6,000
1,2-Dichloroethane (EDC)	107-06-2	12
1,2-Dichloroethylene	540-59-0	6,000
Dichloroethyl ether	111-44-4	6,000
1,1-Dichloro-1-nitroethane	594-72-9	3,648
Dichloropropene	542-75-6	1,829
2,2-Dichloropropionic acid	75-99-0	2,186

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Dichlorvos	62-73-7	368
Dicrotophos	141-66-2	91
Dicyclopentadiene	77-73-6	6,000
Dieldrin	60-57-1	91
Diethanolamine	111-42-2	5,477
Diethylamine	109-89-7	6,000
2-Diethylaminoethanol	100-37-8	6,000
Diethylene triamine	111-40-0	1,461
Di(2-ethylhexyl) phthalate (DEHP)	117-81-7	125
Diethyl phthalate	84-66-2	1,829
Diethyl sulfate	64-67-5	12
Diethylstilbestrol (DES)	56-53-1	12
Diglycidyl ether (DGE)	2238-07-5	179
Diisobutyl ketone	108-83-8	6,000
Diisopropylamine	108-18-9	6,000
3,3'-Dimethoxybenzidine (o-Dianisidine)	119-90-4	125
Dimethyl acetamide	127-19-5	6,000
Dimethylamine	124-40-3	6,000
4-Dimethylaminoazobenzene	60-11-7	125
Dimethylaniline (N,N-Dimethylaniline)	121-69-7	6,000
3,3'-Dimethylbenzidine (o-Tolidine)	119-93-7	125
Dimethyl carbamoyl chloride	79-44-7	125
N,N-Dimethylformamide	68-12-2	6,000
1,1-Dimethylhydrazine	57-14-7	125
Dimethylphthalate	131-11-3	1,829
Dimethyl sulfate	77-78-1	12
Dinitrobenzene, all isomers	528-29-0[2]	368
Dinitro-o-cresol	534-52-1	73
2,4-Dinitrophenol	51-28-5	6,000
Dinitrotoluene	25321-14-6[2]	547
n-Dioctyl phthalate	117-84-0	6,000
1,4-Dioxane	123-91-1	125
Dioxathion	78-34-2	73
Diquat	85-00-7[2]	179
Disulfoton	298-04-4	37
Divinyl benzene	1321-74-0[2]	6,000
Endosulfan	115-29-7	37
Endrin	72-20-8	37
Epichlorohydrin	106-89-8	150
EPN	2104-64-5	179
1,2-Epoxybutane (1,2-Butylene oxide)	106-88-7	6,000
Ethanolamine	141-43-5	2,922
Ethion	563-12-2	147
2-Ethoxyethanol (EGEE)	110-80-5	3,280
2-Ethoxyethyl acetate (EGEEA)	111-15-9	6,000
Ethyl acrylate	140-88-5	6,000
Ethylamine (Ethanamine)	75-04-7	6,000
Ethyl amyl ketone	541-85-5	6,000

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Ethyl benzene	100-41-4	6,000
Ethyl butyl ketone	106-35-4	6,000
Ethyl chloride (Chloroethane)	75-00-3	6,000
Ethylene chlorohydrin	107-07-3	662
Ethylenediamine	107-15-3	6,000
Ethylene glycol vapor	107-21-1	6,000
Ethylene oxide	75-21-8	12
Ethylene thiourea	96-45-7	125
Ethylenimine	151-56-4	368
Ethylidene norbornene	16219-75-3	5,550
N-Ethylmorpholine	100-74-3	6,000
Ethyl silicate	78-10-4	6,000
Fensulfothion	115-90-2	37
Fenthion	55-38-9	73
Fine mineral fibers (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)	[2]	6,000
Fluorides, (inorganics), as F	[2]	915
[3]Fluorine	7782-41-4	725
Fonofos	944-22-9	37
Formaldehyde	50-00-0	125
Furfural	98-01-1	2,922
Furfuryl alcohol	98-00-0	6,000
[3]Germanium tetrahydride	7782-65-2	221
Glycidol	556-52-5	6,000
Glycol ethers[4]	[2]	6,000
[3]Halon-1211 (Bromochlorodifluoromethane)	353-59-3	6,000
[3]Halon-1301 (Bromotrifluoromethane)	75-63-8	6,000
[3]Halon-2402 (Dibromotetrafluoroethane)	124-73-2	6,000
Heptachlor	76-44-8	179
Hexachlorobenzene (HCB)	118-74-1	12
Hexachlorobutadiene	87-68-3	46
Hexachlorocyclopentadiene	77-47-4	37
Hexachloroethane	67-72-1	6,000
Hexachloronaphthalene	1335-87-1	73
Hexamethylene-1,6-diisocyanate	822-06-0	6,000
Hexamethyl phosphoramide	680-31-9	125
n-Hexane	110-54-3	6,000
sec-Hexyl acetate	108-84-9	6,000
Hexylene glycol	107-41-5	6,000
Hydrazine and hydrazine sulfate	302-01-2[2]	125
Hydrazobenzene	122-66-7	125
[3]Hydrochlorofluorocarbon-21 (HCFC-21, Dichlorofluoromethane)	75-43-4	6,000
[3]Hydrochlorofluorocarbon-22 (HCFC-22, R-22, Chlorodifluoromethane)	75-45-6	6,000
[3]Hydrochlorofluorocarbon-31 (HCFC-31, R-31, Chlorofluoromethane)	593-70-4	6,000
[3]Hydrochlorofluorocarbon-121 (HCFC-121)		6,000
[3]Hydrochlorofluorocarbon-122 (HCFC-122)		6,000
[3]Hydrochlorofluorocarbon-123 (HCFC-123, R-123)	306-83-2	6,000
[3]Hydrochlorofluorocarbon-124 (HCFC-124, R-124)	63938-10-3	6,000

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
[3]Hydrochlorofluorocarbon-131 (HCFC-131)		6,000
[3]Hydrochlorofluorocarbon-132b (HCFC-132b)	1649-08-7	6,000
[3]Hydrochlorofluorocarbon-133a (HCFC-133a, R-133a)	75-88-7	6,000
[3]Hydrochlorofluorocarbon-141b (HCFC-141b, R-141b)		6,000
[3]Hydrochlorofluorocarbon-142b (HCFC-142b, R-142b)	75-68-3	6,000
[3]Hydrochlorofluorocarbon-221 (HCFC-221)		6,000
[3]Hydrochlorofluorocarbon-222 (HCFC-222)		6,000
[3]Hydrochlorofluorocarbon-223 (HCFC-223)		6,000
[3]Hydrochlorofluorocarbon-224 (HCFC-224)		6,000
[3]Hydrochlorofluorocarbon-225ca (HCFC-225ca)		6,000
[3]Hydrochlorofluorocarbon-225cb (HCFC-225cb)		6,000
[3]Hydrochlorofluorocarbon-226 (HCFC-226)		6,000
[3]Hydrochlorofluorocarbon-231 (HCFC-231)		6,000
[3]Hydrochlorofluorocarbon-232 (HCFC-232)		6,000
[3]Hydrochlorofluorocarbon-233 (HCFC-233)		6,000
[3]Hydrochlorofluorocarbon-234 (HCFC-234)		6,000
[3]Hydrochlorofluorocarbon-235 (HCFC-235)		6,000
[3]Hydrochlorofluorocarbon-241 (HCFC-241)		6,000
[3]Hydrochlorofluorocarbon-242 (HCFC-242)		6,000
[3]Hydrochlorofluorocarbon-243 (HCFC-243)		6,000
[3]Hydrochlorofluorocarbon-244 (HCFC-244)		6,000
[3]Hydrochlorofluorocarbon-251 (HCFC-251)		6,000
[3]Hydrochlorofluorocarbon-252 (HCFC-252)		6,000
[3]Hydrochlorofluorocarbon-253 (HCFC-253)		6,000
[3]Hydrochlorofluorocarbon-261 (HCFC-261)		6,000
[3]Hydrochlorofluorocarbon-262 (HCFC-262)		6,000
[3]Hydrochlorofluorocarbon-271 (HCFC-271)		6,000
Hydrogenated terphenyls	61788-32-7	1,829
[3]Hydrogen bromide	10035-10-6	2,218
[3]Hydrogen chloride	7647-01-0	1,556
[3]Hydrogen cyanide	74-90-8	2,218
[3]Hydrogen fluoride	7664-39-3	557
[3]Hydrogen peroxide	7722-84-1	547
[3]Hydrogen sulfide	7783-06-4	5,109
Hydroquinone	123-31-9	725
2-Hydroxypropyl acrylate	999-61-1	1,093
Indeno(1,2,3-cd)pyrene	193-39-5	12
Indium	7440-74-6	37
[3]Iodine	7553-56-2	221
Iron dextran complex	9004-66-4	12
Iron salts, soluble, as Fe	[2]	368
Isobutyl alcohol	78-83-1	6,000
Isooctyl alcohol	26952-21-6	6,000
Isophorone	78-59-1	5,550
Isophorone diisocyanate	4098-71-9	33
Isopropoxyethanol	109-59-1	6,000

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Isopropylamine	75-31-0	4,373
N-Isopropylaniline	768-52-5	3,648
Isopropyl glycidyl ether	4016-14-2	6,000
Ketene	463-51-4	326
Lead compounds	7439-92-1[2]	6,000
Lindane and other hexachlorocyclohexane isomers	58-89-9[2]	12
Maleic anhydride	108-31-6	368
Manganese, as Mn, dust and compounds	7439-96-5[2]	1,114
Melphalan	148-82-3	12
[3]Mercury alkyl compounds, as Hg	7439-97-6[2]	3.7
[3]Mercury, all forms except alkyl, vapor, as Hg	7439-97-6[2]	18
[3]Mercury aryl & inorganic compounds, as Hg	7439-97-6[2]	37
Mesityl oxide	141-79-7	6,000
Mestranol	72-33-3	12
Methacrylic acid	79-41-4	6,000
Methanol	67-56-1	6,000
Methomyl	16752-77-5	915
Methoxychlor	72-43-5	6,000
2-Methoxyethanol (EGME)	109-86-4	5,834
2-Methoxyethyl acetate (EGMEA)	110-49-6	6,000
4-Methoxyphenol	150-76-5	1,829
Methyl acrylate	96-33-3	6,000
Methylacrylonitrile	126-98-7	1,093
Methylamine	74-89-5	4,373
Methyl n-amyl ketone	110-43-0	6,000
N-Methyl aniline	100-61-8	725
Methyl bromide	74-83-9	6,000
Methyl n-butyl ketone	591-78-6	6,000
Methyl chloride	74-87-3	6,000
[3]Methyl chloroform (1,1,1-Trichloroethane)	71-55-6	6,000
Methyl 2-cyanoacrylate	137-05-3	2,922
Methylcyclohexanol	25639-42-3	6,000
o-Methylcyclohexanone	583-60-8	6,000
Methyl demeton	8022-00-2	179
4,4'-Methylene bis(2-chloroaniline) (MOCA)	101-14-4	125
Methylene bis(4-cyclohexylisocyanate)	5124-30-1	19
Methylene bisphenyl isocyanate (MDI)	101-68-8	44
[3]Methylene chloride	75-09-2	6,000
4,4'-Methylenedianiline (and dihydrochloride)	101-77-9[2]	125
Methyl ethyl ketone (2-Butanone) (MEK)	78-93-3	6,000
Methyl ethyl ketone peroxide	1338-23-4	336
Methyl formate	107-31-3	6,000
Methyl hydrazine	60-34-4	336
Methyl iodide	74-88-4	125
Methyl isoamyl ketone	110-12-3	6,000
Methyl isobutyl carbinol	108-11-2	6,000
Methyl isobutyl ketone	108-10-1	6,000
Methyl isocyanate	624-83-9	18

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Methyl methacrylate	80-62-6	6,000
Methyl parathion	298-00-0	73
alpha-Methyl styrene	98-83-9	6,000
Methyl tert-butyl ether	1634-04-4	6,000
Mevinphos (Phosdrin)	7786-34-7	37
Molybdenum, as Mo, soluble compounds	7439-98-7[2]	1,829
Monocrotophos	6923-22-4	91
Morpholine	110-91-8	6,000
Mustard gas	505-60-2	12
Naled	300-76-5	1,093
Naphthalene	91-20-3	6,000
2-Naphthylamine	91-59-8	12
Nickel compounds other than nickel subsulfide, as Ni	7440-02-0[2]	125
Nickel subsulfide	12035-72-2	12
Nitric acid	7697-37-2	1,829
p-Nitroaniline	100-01-6	1,093
Nitrobenzene	98-95-3	1,829
4-Nitrobiphenyl	92-93-3	6,000
p-Nitrochlorobenzene	100-00-5	233
Nitroethane	79-24-3	6,000
Nitrogen mustards (2,2'-Dichloro-N-methyldiethylamine)	51-75-2	12
[3]Nitrogen oxides	[2]	10,000
Nitromethane	75-52-5	6,000
4-Nitrophenol	100-02-7	6,000
2-Nitropropane	79-46-9	125
N-Nitrosodi-n-butylamine	924-16-3	12
N-Nitrosodiethanolamine	1116-54-7	12
N-Nitrosodiethylamine	55-18-5	12
N-Nitrosodimethylamine	62-75-9	12
p-Nitrosodiphenylamine	156-10-5	12
N-Nitrosodi-n-propylamine	621-64-7	12
N-Nitroso-N-ethylurea	759-73-9	12
N-Nitroso-N-methylurea	684-93-5	12
N-Nitrosomethylvinylamine	4549-40-0	12
N-Nitrosomorpholine	59-89-2	12
N'-Nitrosonornicotine	16543-55-8	12
N-Nitrosopiperidine	100-75-4	12
N-Nitrosopyrrolidine	930-55-2	12
N-Nitrososarcosine	13256-22-9	12
Nitrotoluene, all isomers	99-08-1[2]	4,016
Octachloronaphthalene	2234-13-1	37
Oestradiol	50-28-2	12
Oxalic acid	144-62-7	368
Oxymetholone	434-07-1	12
Paraquat (respirable sizes)	1910-42-5[2]	37
Parathion	56-38-2	37
[3]Particulate matter	[2]	10,000
PM_{10}	[2]	10,000

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Pentachloronaphthalene	1321-64-8	179
Pentachloronitrobenzene (Quintobenzene) (PCNB)	82-68-8	6,000
Pentachlorophenol	87-86-5	179
[3]Perchloroethylene	127-18-4	6,000
Perchloromethyl mercaptan	594-42-3	294
Phenazopyridine and phenazopyridine hydrochloride	136-40-3[2]	12
Phenol	108-95-2	6,000
Phenothiazine	92-84-2	1,829
p-Phenylenediamine	106-50-3	37
Phenyl ether vapor	101-84-8	2,554
Phenyl glycidyl ether (PGE)	122-60-1	2,186
Phenylhydrazine	100-63-0	3,831
Phenyl mercaptan	108-98-5	725
Phenytoin and sodium salt of phenytoin	57-41-0[2]	12
Phorate	298-02-2	18
Phosgene	75-44-5	147
[3]Phosphine	7803-51-2	147
Phosphoric acid	7664-38-2	368
Phosphorus (yellow)	7723-14-0	37
Phosphorus oxychloride	10025-87-3	221
[3]Phosphorus pentachloride	10026-13-8	368
Phosphorus pentasulfide	1314-80-3	368
[3]Phosphorus trichloride	7719-12-2	547
Phthalic anyhydride	85-44-9	2,186
Pindone	83-26-1	37
Platinum (metal)	7440-06-4	368
Platinum, soluble salts, as Pt	7440-06-4[2]	0.73
Polychlorinated biphenyls (PCB)	1336-36-3	0.050
Potassium hydroxide	1310-58-3	442
Procarbazine and procarbazine hydrochloride	366-70-1[2]	12
1,3-Propane sultone	1120-71-4	125
Propargyl alcohol	107-19-7	725
beta-Propiolactone	57-57-8	125
Propionaldehyde	123-38-6	6,000
Propoxur	114-26-1	179
Propylene dichloride	78-87-5	6,000
Propylene oxide	75-56-9	125
Propyleneimine	75-55-8	125
Propylthiouracil	51-52-5	12
Pyrethrum	8003-34-7	1,829
Pyridine	110-86-1	5,477
Quinoline	91-22-5	6,000
Quinone	106-51-4	147
Reserpine	50-55-5	12
Resorcinol	108-46-3	6,000
Rhodium (metal)	7440-16-6	368
Rhodium, soluble compounds, as Rh	7440-16-6[1]	3.7
Rotenone (commercial)	83-79-4	1,829

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Selenium and compounds, as Se	7782-49-2[2]	73
[3]Silicon tetrahydride (Silane)	7803-62-5	2,554
Sodium bisulfite	7631-90-5	1,829
Sodium fluoroacetate	62-74-8	18
Sodium hydroxide	1310-73-2	442
[3]Stibine (Antimony hydride)	7803-52-3	179
Stoddard solvent (Mineral spirits)	8052-41-3	6,000
Streptozotocin	18883-66-4	12
Strychnine	57-24-9	55
Styrene, monomer	100-42-5	6,000
Styrene oxide	96-09-3	6,000
Sulfotep (TEDP)	3689-24-5	73
[3]Sulfur dioxide	7449-09-5	10,000
Sulfuric acid	7664-93-9	368
Sulfur monochloride	10025-67-9	1,335
[3]Sulfur tetrafluoride	7783-60-0	88
[3]Sulfuryl fluoride	2699-79-8	6,000
Tellurium and compounds, as Te	13494-80-9[2]	37
TEPP	107-49-3	18
Terphenyls	26140-60-3	1,114
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	0.00005
1,1,2,2-Tetrachloroethane	79-34-5	2,554
Tetrachloronaphthalene	1335-88-2	725
Tetrahydrofuran	109-99-9	6,000
Thallium, soluble compounds, as Tl	7440-28-0[2]	37
Thionyl chloride	7719-09-7	1,114
Thiourea	62-56-6	125
Thiram	137-26-8	1,829
Tin (metal)	7440-31-5	725
Tin organic compounds, as Sn	7440-31-5[2]	37
Tin oxide & inorganic compounds, except SnH_4, as Sn	7440-31-5[2]	725
Titanium tetrachloride	7550-45-0	6,000
Toluene (Toluol)	108-88-3	6,000
Toluene-2,4-diisocyanate (TDI)	584-84-9	15
m-Toluidine	108-44-1	3,280
o-Toluidine	95-53-4	12
[3]Total reduced sulfur and reduced sulfur compounds		10,000
Tributyl phosphate	126-73-8	915
1,2,4-Trichlorobenzene	120-82-1	6,000
1,1,2-Trichloroethane	79-00-5	6,000
Trichloroethylene	79-01-6	6,000
Trichloronaphthalene	1321-65-9	1,829
2,4,5-Trichlorophenol	95-95-4	6,000
2,4,6-Trichlorophenol	88-06-2	6,000
1,2,3-Trichloropropane	96-18-4	6,000
Triethylamine	121-44-8	6,000
Trifluralin	1582-09-8	6,000
Trimellitic anhydride	552-30-7	15

Air Contaminant Name	*CAS Number*[1]	*Reporting Level (lbs/yr)*
Trimethyl benzene, mixed isomers	25551-13-7	6,000
2,2,4-Trimethylpentane	540-84-1	6,000
Triorthocresyl phosphate	78-30-8	37
Triphenyl phosphate	115-86-6	1,093
Tris(1-aziridinyl)phosphine sulfide	52-24-4	12
Tungsten - as W, insoluble compounds	7440-33-7[2]	1,829
Tungsten - as W, soluble compounds	7440-33-7[2]	368
Uranium (natural), soluble & insoluble compounds, as U	7440-61-1[2]	73
Urethane (Ethyl carbamate)	51-79-6	125
n-Valeraldehyde	110-62-3	6,000
Vanadium, as V_2O_5, respirable dust and fume	1314-62-1	179
Vinyl acetate	108-05-4	6,000
Vinyl bromide	593-60-2	6,000
Vinyl chloride	75-01-4	150
Vinyl cyclohexene dioxide	106-87-6	6,000
Vinylidene chloride	75-35-4	6,000
Vinyl toluene	25013-15-4	6,000
[3]Volatile organic compounds (Reactive organic gases)	[3]	6,000
Warfarin	81-81-2	37
Xylene, mixed isomers (Xylol)	1330-20-7	6,000
m-Xylene	108-38-3	6,000
o-Xylene	95-47-6	6,000
p-Xylene	106-42-3	6,000
m-Xylene-alpha,alpha'-diamine	1477-55-0	22
Xylidine, mixed isomers	1300-73-8	912
Zirconium and compounds, as Zr	7440-67-7[2]	1,829

[1] Chemical Abstract Service or CAS numbers refer to the unique chemical abstracts service registry number assigned to a specific chemical, isomer or mixture of chemicals or isomers and recorded in the CAS chemical registry system by the Chemical Abstracts Service, PO Box 3012, Columbus OH 43210, phone 1-800-848-5638 ext. 2308.

[2] Indicates contaminants for which multiple CAS numbers may apply. For contaminants listed as a metal and its compounds, the given CAS number refers to the metal.

[3] Indicates contaminants for which a fee will be assessed, under s. NR 410.04.

[4] Glycol ethers means any compound which can be described by the following chemical formula: $R(OCH_2CH_2)_n$-OR'

where: n = 1, 2 or 3
R = alkyl C7 or less
or R = phenyl or alkyl substituted phenol
R' = H or alkyl C7 or less or ester, sulfate, phosphate, nitrate, sulfonate (i.e. any group that will readily come off).

(2) REPORTING DEADLINE. Reports required under this section shall be submitted by March 1 of each year for air contaminants emitted during the preceding year. Persons unable to submit reports by March 1 may, upon request to the department, be granted an extension until March 15 for submission of the reports if the department determines that an extension is reasonable under the circumstances.

(3) PORTABLE SOURCES. The owner or operator of a portable source shall file one emission inventory report covering all operations at all locations in the state during the previous year.

(4) REQUIRED RECORDS. Owners and operators of facilities required to file emission inventory reports shall keep accurate and reliable records sufficient to enable verification of the reports by the department. Records shall include data on fuel composition and consumption, quantities of raw materials handled which contribute to emissions, quantities of wastes incinerated, continuous emissions monitoring data and audits, and any results of stack or performance tests together with the names of persons or firms responsible for each test, if applicable. Records shall be retained for 5 years following the year in which the emission inventory report is submitted.

(5) EMISSION INVENTORY AND CERTIFICATION. (a) Based on the throughput or emissions information submitted pursuant to ss. NR 438.03 and 438.04, the department shall determine each facility's annual actual emissions and typical ozone season day emissions based on emission factors contained in Compilation of Air Pollution Emission Factors, AP-42, Volume 1: Stationary Point and Area Sources, USEPA-OAQPS, September 1991, or Toxic Air Pollutant Emission Factors for Selected Air Toxic Compounds and Sources, USEPA-OAQPS, EPA-450/2-88-066a, October, 1990, incorporated by reference in ch. NR 484. Other emission factors or methods, including, but not limited to, mass balance or other use reporting, consumption and analytical methodologies, or continuous emissions monitoring data, if applicable, may be used by the department.

(b) The actual annual emissions determined by the department under par. (a) shall constitute the department's annual emission inventory.

(c) By May 31 of each year, the department shall send each owner or operator of a facility which is required to file an emission inventory report a summary from the department's annual emission inventory of the air contaminants emitted by the facility for the previous year. The owner or operator of a facility required to obtain an air pollution control permit under s. 144.391, Stats., and ch. NR 406, 407 or 408, or which emits volatile organic compounds or nitrogen oxides in an ozone nonattainment area, shall, by June 30 of each year, send a written certification to the department that the summary of its emissions is correct. The certification shall contain the name, title, signature and telephone number of the certifier, the date of certification and a statement that the information contained in the emissions summary is accurate to the best knowledge of the owner or operator of that facility.

(6) DISPUTED EMISSIONS. Any facility that disputes the emissions summary supplied by the department under sub. (5) (c) may request, in writing, that the department review its emissions summary. The department shall review and supply to the facility, within 14 calendar days of receipt of the facility's written request, information used to prepare the emission

inventory and summary for that facility. If the facility continues to dispute the emissions summary, it shall supply to the department, within 14 calendar days of receipt of the department's information, the reasons it disputes the summary. The facility shall be notified within 7 calendar days of receipt of this information of the department's decision on whether to adjust the emission inventory and summary. If the facility continues to dispute the summary, it may appeal the department's final decision pursuant to state law. The facility shall certify any emissions not in dispute by June 30 of each year.

History: Cr. Register, May, 1993, No. 449, eff. 6-1-93.

NR 438.04 Content of emission inventory reports. (1) GENERAL INSTRUCTIONS. Emission inventory reports required under this chapter shall be submitted on forms or other media supplied by the department. Emission inventory reports submitted by facilities shall contain the information specified in s. NR 438.03 (1) and (3) and this section. Emissions shall be reported separately for each source or group of similar sources at each facility.

Note: Emission inventory reports shall be made on form 4500-090 available from the Bureau of Air Management, Department of Natural Resources, P.O. Box 7921, Madison, WI 53707, Tel. (608) 266-0151.

(2) FACILITY IDENTIFICATION AND GENERAL INFORMATION. For all facilities the emission inventory report shall include:

(a) The name and mailing address of the facility.

(b) The location of the facility.

(c) The name and address of the parent company or corporation, if any.

(d) The appropriate facility standard industrial classification code and a brief description which characterizes the nature of the business or other activity of the facility.

(e) The normal operation schedule of the facility in hours per day, days per week, days per year, and percentage production by quarter.

(f) The name and telephone number of the individual to be contacted regarding the emission inventory report.

(g) A list of stacks and the air contaminant sources vented to each stack including:

1. Height of each stack.

2. Inside top diameter of each stack.

3. Volumetric flow rate through each stack at maximum and normal operating conditions.

4. Temperature of the gas flowing through each stack at maximum and normal operating conditions.

5. The type of continuous emission monitor and pollutant or pollutants monitored for each stack, if applicable.

(h) A description of fugitive emissions, their type, source, operating schedule, estimated emissions or throughput, and control technique and estimated control efficiency.

(3) FUEL COMBUSTION. For fuel combustion units, the emission inventory report shall include:

(a) Source classification code.

(b) Number of boilers.

(c) Types of fuel burning equipment for each boiler.

(d) Rated capacity of each boiler.

(e) For each fuel burned:

1. Type of fuel.

2. Maximum and average quantity burned per hour.

3. Quantity burned per year.

4. Average hours of operation of each boiler using the fuel per day.

5. Average and maximum sulfur content in percent by weight per fuel.

6. Average and maximum ash content in percent by weight per fuel.

7. Average and maximum heat content of fuel in BTUs per unit per fuel.

(f) The type of air pollution control equipment in use and the actual control efficiency in percent.

(4) MANUFACTURING PROCESSES. For manufacturing processes which emit air contaminants, the emission inventory report shall include:

(a) Process name and description.

(b) Source classification code.

(c) Quantity of raw materials used and handled for each process, maximum quantity per hour, and actual quantity per year.

(d) Description of annual, seasonal, monthly, weekly and daily operating cycle including downtime for maintenance and repairs.

(e) The type air pollution control equipment in use and the actual capture and control efficiency in percent.

(5) INCINERATION. For all incineration equipment, the emission inventory report shall include:

(a) Source classification code.

(b) Type or description of waste.

(c) Percent of waste which is combustible.

(d) Capacity of incinerator in pounds of waste per hour.

(e) Residence time of the combustion products in the combustion chamber.

(f) Description of annual, seasonal, monthly, weekly and daily operating cycle including downtime for maintenance and repairs.

(g) The type of air pollution control equipment in use and the actual control efficiency in percent.

(6) OTHER AIR CONTAMINANTS. For all other air contaminant emissions from a facility, the emission inventory report shall include:

(a) Identification of the air contaminant and its associated identifier number which is supplied to the source by the department.

(b) Annual, actual emissions of the air contaminant.

(c) Units of reported emissions.

(d) Method of determination of emissions.

History: Cr. Register, May, 1993, No. 449, eff. 6-1-93.