



CR 91-20

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

101 South Webster Street
Box 7921
Madison, Wisconsin 53707
TELEPHONE 608-266-2621
TELEFAX 608-267-3579
TDD 608-267-6897

STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES) ss

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. AM-11-91 was duly approved and adopted by this Department on September 26, 1991. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have here-
unto set my hand and affixed the
official seal of the Department at
the Natural Resources Building in
the City of Madison, this 13th
day of February, 1992.

Bruce B. Braun
Bruce B. Braun, Deputy Secretary

RECEIVED

FEB 25 1992
14:55
Revisor of Statutes
Bureau

(SEAL)

6-1-92

ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
RENUMBERING, AMENDING AND CREATING RULES

RECEIVED

FEB 25 1992

.....
IN THE MATTER of renumbering and amending s. NR .
445.04(4), (5) and (6); amending ss. NR .
407.03(2)(d)4., 445.04(1)(title), (intro.) and .
(c)(intro.), and Table 3 and Table 4, .
445.05(4)(intro.), (a) and (b), (5), (6)(intro.), .
(a)1.(intro.), 2.(intro.) and 3.(intro.), (c) and .
(f)1. and 3.(intro.), 445.06(4) and 484.09(2), and .
creating ss. NR 445.04(4) and (6)(d) and (e), .
445.05(6)(am), (b)lm., (g)lm. and 484.09(3) of the .
Wisconsin Administrative Code pertaining to the .
regulation of hazardous air contaminants. .
.....

Revisor of Statutes
Bureau

AM-11-91

Analysis Prepared by the Department of Natural Resources

Statutory authority: ss. 144.31, 144.375(5), 144.38 and 227.11(2)(a), Stats.

Statutes interpreted: ss. 144.31(1)(f) and 144.375(5), Stats. The State Implementation Plan (SIP) developed under s. 144.31(1)(f), Stats., is revised.

Regulations designed to protect Wisconsin residents from hazardous air contaminants were adopted by the Natural Resources Board in May of 1988 and became effective in October of 1988. The rules, which are contained in Chapters NR 445, 406 and 407 of the Wisconsin Administrative Code, restrict the air emissions of hazardous air contaminants (listed in Tables 1 to 4 of s. NR 445.04) which are considered to be toxic or carcinogenic. Section NR 445.06(2) of the Wisconsin Administrative Code required that the Department, after consultation with the Department of Health and Social Services, submit a report to the Natural Resources Board which contains recommended acceptable ambient concentrations for the hazardous air contaminants listed in Table 4 of s. NR 445.04 by October 1, 1990.

The report to the Natural Resources Board contained recommendations for changes to Table 4 of s. NR 445.04. Two recommendations are now incorporated into this proposed rule revision and are summarized as follows.

1. Four contaminants currently listed in Table 4 of s. NR 445.04 have had new Threshold Limit Values established by the American Conference of Governmental Industrial Hygienists since October of 1988. The intent of the proposed rule revision is to incorporate these new values into ch. NR 445. Revising the rule to reflect these new values will result in new, lower emission limits for these contaminants. The emission limits are expressed as acceptable ambient concentrations.
2. Four contaminants currently listed in Table 4 of s. NR 445.04 have been found to have new evidence of carcinogenicity by the International Agency for Research on Cancer and the National Toxicology Program. The intent of the proposed rule revision is to remove these four contaminants from Table 4 and place them in Table 3. This change will result in these contaminants being regulated as known or suspected

carcinogens instead of as acute toxins. The new emission limits for these four contaminants will be control technology based.

In addition, these rules make minor changes in order to make the language in ch. NR 445 more consistent and less confusing.

SECTION 1. NR 407.03(2)(d) is amended to read:

NR 407.03(2)(d) The source will not emit any hazardous air contaminant listed in Table 1, 2 ~~or~~ 3 or 4 of s. NR 445.04 in amounts greater than the emission rate listed in ~~the table~~ Table 1, 2, 3 or 4 of s. NR 445.04 for the air contaminant for the respective stack height; and

SECTION 2. NR 445.04(1)(title), (intro.) and (c)(intro.) are amended to read:

NR 445.04(1)(title) TABLE 1 AND TABLE 4 SUBSTANCES. (intro.) Except as provided in par. (c) or s. NR 406.07(2), no owner or operator of a stationary source on which construction or modification commenced after October 1, 1988 may cause, allow or permit emissions from a source of a hazardous air contaminant listed in Table 1 ~~or Table 4~~ in such quantity or duration as to cause ambient air concentrations off the source's property which exceed the limits in par. (a) or (b).

(c)(intro.) Exemptions. The following emissions are exempt from the emission limits of Table 1 ~~and Table 4~~ substances:

SECTION 3. NR 445.04(4) is renumbered 445.04(5) and as renumbered, amended to read:

NR 445.04(5) INCINERATORS. Any owner or operator of a stationary source on which construction or modification commenced after October 1, 1988 and which combusts municipal solid waste as defined in s. NR 500.03(86) or infectious waste shall comply with ~~sub.~~ subs. (1) and (4) and shall control emissions of hazardous air contaminants listed in Table 3 to a level which is

the lowest achievable emission rate. A source which combusts refuse derived fuel in a boiler and obtains less than 50% of its heat input from the refuse derived fuel is not subject to this subsection.

SECTION 4. NR 445.04(4) is created to read:

NR 445.04(4) TABLE 4 SUBSTANCES. Except as provided in par. (c) or s. NR 406.07(2), no owner or operator of a stationary source on which construction or modification commenced after October 1, 1988 may cause, allow or permit emissions from a source of a hazardous air contaminant listed in Table 4 in such quantity or duration as to cause ambient air concentrations off the source's property which exceed the limits in par. (a) or (b).

(a) 24-hour. 1. Two and four tenths percent (2.4%) of the threshold limit value - time weighted average established by the American conference of governmental industrial hygienists, in the threshold limit values and biological exposure indices for 1990-1991, incorporated by reference in ch. NR 484, for any consecutive 24-hour averaging period; or

2. Ten percent (10%) of the threshold limit value - time weighted average established by the American conference of governmental industrial hygienists, in the threshold limit values and biological exposure indices for 1990-1991, incorporated by reference in ch. NR 484, for any 24-hour averaging period if the hazardous air contaminant is emitted no more than 5 days in any consecutive 30-day period and if the department determines after complying with s. NR 445.06(1) that such limits will not pose a threat to public health or welfare.

(b) One-hour. Ten percent (10%) of the threshold limit value - ceiling established by the American conference of governmental industrial hygienists in the threshold limit values and biological exposure indices for 1990-1991, incorporated by reference in ch. NR 484, for any one-hour averaging period.

(c) Exemptions. The following emissions are exempt from the emission limits of Table 4 substances:

1. Emissions from the combustion of group 1 virgin fossil fuels.
2. Emissions from the combustion of group 2 virgin fossil fuels vented from a stack which has downwash minimization stack height or a height approved by the department.
3. Emissions from a laboratory.
4. Indoor fugitive emissions.

SECTION 5. NR 445.04(5) is renumbered 445.04(6), and as renumbered, 445.04(6)(a) and (b)2. are amended to read:

NR 445.04(6)(a) Compliance timing. Any Except as provided for in pars. (d) and (e), any source which commences construction or modification on or after October 1, 1988 shall meet the emission limitations in this section upon ~~start up~~ startup.

(b)2. The owner or operator of a source may demonstrate compliance with emission limitations of sub. (1), (2) ~~or~~ (4) or (5) by demonstrating that the concentration of the substances in Table 1 ~~or~~ 2, or 4 in the stack is less than the ambient concentration allowed under sub. (1) ~~or~~ (2) or (4).

SECTION 6. NR 445.04(6)(d) and (e) are created to read:

NR 445.04(6)(d) Compliance schedule for chromyl chloride, tert-butyl chromate, propylene oxide and anisidine. The owner or operator of a stationary source on which construction or modification last commenced prior to the effective date of this rule...[revisor insert date] and whose allowable emissions of chromyl chloride, tert-butyl chromate, propylene oxide or anisidine are equal to or greater than the emission rate listed in Table 3, shall meet the emission limitations in sub. (3) for these contaminants in

accordance with s. NR 445.05(6)(am) and (f)1. and 3.

(e) Compliance schedule for diisobutyl ketone, methylene bis(4-cyclohexylisocyanate), p-nitrochlorobenzene and xylidine. The owner or operator of a stationary source on which construction or modification last commenced prior to the effective date of this rule...[revisor insert date] and whose allowable emissions of diisobutyl ketone, methylene bis(4-cyclohexylisocyanate), p-nitrochlorobenzene and xylidine are equal to or greater than the emission rate listed in Table 4, shall meet the emission limitations in sub. (4) for these contaminants in accordance with s. NR 445.05(6)(b)1m., 2. and 3.

SECTION 7. NR 445.04(6) is renumbered 445.04(7), and as renumbered, amended to read:

NR 445.04(7) VARIANCE. The owner or operator of a source may apply for and the department may grant a variance from an emission limitation of sub. (3)(a) or ~~(4)~~ (5) if the applicant demonstrates to the satisfaction of the department that compliance with sub. (3)(a) or ~~(4)~~ (5) would be economically infeasible, and that residual emissions of the hazardous air contaminant in question would not cause significant harm to the environment or public health, and the source's emissions are controlled to a level which is the best available control technology. The department shall publish a notice of and hold a public hearing on any preliminary determination to approve a variance request under this subsection. The department shall grant or deny a variance request within 90 business days after the close of the public hearing on the request. The department shall review any variance granted under this subsection on a 5 year basis. Following its review and after notice and an opportunity for a public hearing and public comment, the department may modify, extend or rescind the variance.

SECTION 8. Table 3 and Table 4 of NR 445.04 are amended to read:

TABLE 3

Hazardous Air Contaminants Without
Acceptable Ambient Concentrations
Requiring Application of
A. Lowest Achievable Emission Rate for Sources of
Group A Hazardous Air Contaminants,
B. Best Available Control Technology for Sources of
Group B Hazardous Air Contaminants¹

<u>Contaminants</u>	<u>CAS Number</u>	<u>lbs/year²</u>
GROUP A CONTAMINANTS		
4-Aminobiphenyl	92-67-1	25.0
Arsenic and inorganic compounds	7440-38-2	25.0
Asbestos	1332-21-4	25.0
Benzene	71-43-2	300.0
Benzidine	92-87-5	2.0
Bis(chloromethyl) ether(BCME) and technical grade	542-88-1	0.10
<u>t-Butyl chromate, as Cr</u>	<u>1189-85-1</u>	<u>0.10</u>
Chloromethyl methyl ether(CMME)	107-30-2	0.10
Chromium (VI), water insoluble compounds, as Cr	7440-47-3	2.0
<u>Chromyl chloride, as Cr</u>	<u>14977-61-8</u>	<u>0.10</u>
Coke oven emissions		25.0
2-Naphthylamine	91-59-8	25.0
Nickel subsulfide	12035-72-2	25.0
Vinyl chloride	75-01-4	300.0
<u>Pharmaceuticals (a total of all listed compounds)</u>		25.0
Azathioprine	446-86-6	
N,N-Bis (2-chloroethyl)-2-naphthylamine (Chloronaphazine)	494-03-1	
1,4-Butanediol dimethanesulphonate (Myleran)	55-98-1	
Chlorambucil	305-03-3	
Cyclophosphamide	50-18-0	
Diethylstilbestrol (DES)	56-53-1	
Melphalan	148-82-3	
Mustard gas	505-60-2	
GROUP B CONTAMINANTS		
Acrylonitrile	107-13-1	25.0
Aflatoxins	1402-68-2	25.0
2-Aminoanthraquinone	117-79-3	250.0
<u>Anisidine</u>	<u>29191-52-4</u>	<u>250.0</u>
o-Anisidine and o-anisidine hydrochloride	29191-52-4	250.0
Benzotrithloride	98-07-7	250.0
Beryllium and beryllium compounds	7440-41-7	25.0
Cadmium and cadmium compounds	7440-43-9	25.0

<u>Group B Contaminants (cont.)</u>	<u>CAS Number</u>	<u>lbs/year²</u>
Carbon tetrachloride	56-23-5	25.0
Chloroform	67-66-3	250.0**
p-Cresidine	120-71-8	250.0
2,4-Diaminoanisole sulfate	39156-41-7	250.0
2,4-Diaminotoluene	95-80-7	250.0
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	250.0
1,2-Dibromoethane (EDB)	106-93-4	250.0
3,3'-Dichlorobenzidine	91-94-1	250.0
1,2-Dichloroethane (EDC)	107-06-2	25.0
Di(2-ethylhexyl) phthalate	117-81-7	250.0
Diethyl sulphate	64-67-5	25.0
3,3-Dimethoxybenzidine (ortho-Dianisidine)	119-90-4	250.0
4-Dimethylaminoazobenzene	60-11-7	250.0
3,3-Dimethylbenzidine	119-93-7	250.0
Dimethylcarbamoyl chloride	79-44-7	250.0
1,1-Dimethylhydrazine	57-14-7	250.0
Dimethyl sulfate	77-78-1	25.0
1,4-Dioxane	123-91-1	250.0
Epichlorohydrin	106-89-8	300.0
Ethylene oxide	75-21-8	25.0
Ethylene thiourea	96-45-7	250.0
Formaldehyde	50-00-0	250.0**
Hexachlorobenzene (HCB)	118-74-1	25.0
Hexamethyl phosphoramidate	680-31-9	250.0
Hydrazine and hydrazine sulfate	302-01-2	250.0
Hydrazobenzene	122-66-7	250.0
Lindane and other hexachlorocyclohexane isomers	58-89-9	25.0
4,4'-Methylene bis(2-chloroaniline) (MDCA)	101-14-4	250.0
4,4'-Methylenedianiline (and dihydrochloride)	101-77-9	250.0
Methyl iodide	74-88-4	250.0
Nickel compounds other than nickel subsulfide, as Ni	7440-02-0	250.0
2-Nitropropane	79-46-9	250.0
Polychlorinated biphenyls (PCB)	1336-36-3	0.10
1,3-Propane sultone	1120-71-4	250.0
β -Propiolactone	57-57-8	250.0
<u>Propylene oxide</u>	<u>75-56-9</u>	<u>250.0</u>
Propylenimine	75-55-8	250.0
2,3,7,8-Tetrachlorodibenzo-para-dioxin	1746-01-6	0.0001
Thiourea	62-56-6	250.0
o-Toluidine	95-53-4	25.0
Urethane (Ethyl carbamate)	51-79-6	250.0

<u>Contaminants</u>	<u>CAS Number</u>	<u>Emission Rate in Pounds/Hour* w/emission points</u>	
		<u>< 25 ft.</u>	<u>≥ 25 ft.</u>
Phenyl glycidyl ether (PGE)	122-60-1	0.499200	2.088000
Phenyl mercaptan	108-98-5	0.165600	0.672000
Phosgene	75-44-5	0.033600	0.139200
Phosphorus (yellow)	7723-14-0	0.008400	0.033600
Phosphorus oxychloride	10025-87-3	0.050400	0.211200
Phosphorus pentasulfide	1314-80-3	0.084000	0.336000
Phosphorus trichloride	7719-12-2	0.124800	0.504000
Phthalic anhydride	85-44-9	0.499200	2.088000
Potassium hydroxide	1310-58-3	0.100800(c)	0.384(c)
Propylene oxide	75-56-9	4.164000	17.472000
Resorcinol	108-46-3	3.748800	15.744000
Sulfur tetrafluoride	7783-60-0	0.020160(c)	0.0768(c)
m-Toluidine	108-44-1	0.748800	3.144000
Trimellitic anhydride	552-30-7	0.003360	0.013920
Trimethyl benzene	2551-13-7	10.411200	43.704000
Vinyl acetate	108-05-4	2.498400	10.488000
Vinylidene chloride	75-35-4	1.665600	6.984000
<u>FUMIGANT</u>			
Methyl formate	107-31-3	20.820000	87.432000
Perchloromethyl mercaptan	594-42-3	0.067200	0.264000
<u>PLASTICIZING COMPOUND</u>			
Camphor (synthetic)	76-22-2	0.998400	4.176000
Hydrogenated terphenyls	61788-32-7	0.417600	1.752000
Methylene bis(4-cyclohexylisocyanate)	5124-30-1	0.005520(e) <u>0.00442</u>	0.02136(e) <u>0.01846</u>
Methyl ethyl ketone peroxide	1338-23-4	0.076800(c)	0.288(c)
Tributyl phosphate	126-73-8	0.208800	0.864000
Triorthocresyl phosphate	78-30-8	0.008400	0.033600
Triphenyl phosphate	115-86-6	0.249600	1.032000
<u>METALS AND COMPOUNDS</u>			
Aluminum pyro powders	7429-90-5	0.417600	1.752000
Aluminum soluble salts	7429-90-5	0.165600	0.672000
Borates, tetra, sodium salts, decahydrate	1303-96-4	0.417600	1.752000
Borates, tetra, sodium salts, pentahydrate	1303-96-4	0.084000	0.336000

<u>Contaminants</u>	<u>CAS Number</u>	<u>Emission Rate</u> <u>in Pounds/Hour*</u> <u>w/emission points</u>	
		<u>< 25 ft.</u>	<u>≥ 25 ft.</u>
Chromium (metal)	7440-47-3	0.040800	0.170400
Chromium (II) compounds, as Cr	7440-47-3	0.040800	0.170400
Cobalt, as Co, metal, dust	7440-48-4	0.004080	0.017040
Copper dust & mists, as Cu	7440-50-8	0.084000	0.336000
Indium	7440-74-6	0.008400	0.033600
Manganese tetroxide	0000 00 0	0.084000	0.336000
Molybdenum, as Mo, soluble compounds	7439-98-7	0.417600	1.752000
Platinum metal	7440-06-4	0.084000	0.336000
Platinum soluble salts, as Pt	7440-06-4	0.000166	0.000672
Rhodium metal	7440-16-6	0.084000	0.336000
Rhodium soluble compounds, as Rh	7440-16-6	0.000840	0.003360
Tellurium and compounds, as Te	13494-80-9	0.008400	0.033600
Thallium soluble compounds, as Tl	7440-28-0	0.008400	0.033600
Tin (metal)	7440-31-5	0.165600	0.672000
Tin oxide & inorganic compounds, except SnH ₄ , as Sn	7440-31-5	0.165600	0.672000
Tungsten - as W, insoluble compounds	7440-33-7	0.417600	1.752000
Tungsten - as W, soluble compounds	7440-33-7	0.084000	0.336000
Uranium (natural) soluble & insoluble, as U	7440-61-1	0.016560	0.006720
Zirconium compounds, as Zr	7440-67-2	0.417600	1.752000

MONOMERS

Caprolactam vapor	105-60-2	1.665600	6.984000
Carbon tetrabromide	558-13-4	0.117600	0.480000
Carbonyl fluoride	353-50-4	0.417600	1.752000
β-Chloroprene	126-99-8	3.748800	15.744000
Cyclopentadiene	542-92-7	16.656000	69.936000
2-N-Dibutylaminoethanol	102-81-8	1.166400	4.896000
Divinyl benzene	108-57-6	4.164000	17.472000
2-Hydroxypropyl acrylate	999-61-1	0.249600	1.032000
Isopropylamine	75-31-0	0.998400	4.176000
Methacrylic acid	79-41-4	5.829600	24.480000
o-Methylcyclohexanone	583-60-8	19.154400	80.448000
α-Methyl styrene	98-83-9	19.987200	83.928000
Sulfur monochloride	10025-67-9	0.304800(c)	1.176(c)
Xylidine	1300-73-8	0.832800	3.480000
		<u>0.208200</u>	<u>0.870000</u>

<u>Contaminants</u>	<u>CAS Number</u>	<u>Emission Rate in Pounds/Hour* w/emission points</u>	
		<u>< 25 ft.</u>	<u>≥ 25 ft.</u>
<u>SOLVENTS</u>			
2-Butoxyethanol	111-76-2	9.993600	41.952000
n-Butyl lactate	138-22-7	2.083200	8.736000
o-Chlorotoluene	95-49-8	20.820000	87.432000
Cumene	98-82-8	20.404800	85.680000
Cyclohexanol	108-93-0	16.656000	69.936000
Diacetone alcohol	123-42-2	19.987200	83.928000
Diisobutyl ketone	108-83-8	12.492000 <u>7.245000</u>	52.464000 <u>30.42900</u>
Dimethyl acetamide	127-19-5	2.916000	12.240000
<u>N,N</u> -Dimethylformamide	68-12-2	2.498400	10.488000
2-Ethoxyethyl acetate	111-15-9	2.248800	9.432000
Ethyl amyl ketone	541-85-5	10.826400	45.456000
Ethyl butyl ketone	106-35-4	19.154400	80.448000
Furfuryl alcohol	98-00-0	3.331200	13.968000
sec-Hexyl acetate	108-84-9	24.984000	104.928
Hexylene glycol	107-41-5	6.331200(c)	24.552(c)
Isooctyl alcohol	26952-21-6	22.485600	94.416000
Isopropoxyethanol	109-59-1	8.745600	36.720000
Isopropyl glycidyl ether	4016-14-2	19.987200	83.928000
Mesityl oxide	141-79-7	4.996800	20.976000
2-Methoxyethyl acetate	110-49-6	1.999200	8.376000
Methyl n-amyl ketone	110-43-0	19.572000	82.200000
Methylcyclohexanol	25639-42-3	19.572000	82.200000
Methyl isoamyl ketone	110-12-3	19.987200	83.928000
Methyl isobutyl carbinol	108-11-2	8.328000	34.968000
Propylene dichloride	78-87-5	29.148000	122.4
Stoddard solvent (Mineral spirits)	8052-41-3	43.723200	183.624
1,2,3-Trichloropropane	96-18-4	24.984000	104.928
Vinyl toluene	25013-15-4	19.987200	83.928000
m-Xylene- α, α' -diamine	1477-55-0	0.005040(c)	0.01944(c)
<u>CHEMICAL WARFARE AGENTS</u>			
Cyanogen chloride	506-77-4	0.031200(c)	0.12(c)
<u>FLAVORS AND FRAGRANCES</u>			
1,1-Dichloro-1-nitroethane	594-72-9	0.832800	3.480000
n-Valeraldehyde	110-62-3	14.575200	61.200000

<u>Contaminants</u>	<u>CAS Number</u>	<u>Emission Rate in Pounds/Hour*</u>	
		<u>< 25 ft. w/emission points</u>	<u>≥ 25 ft.</u>
<u>CATALYSTS AND REAGENTS</u>			
Benzoyl peroxide	94-36-0	0.417600	1.752000
Boron tribromide	10294-33-4	0.506400(c)	1.944(c)
Boron trifluoride	7637-07-2	0.151200(c)	0.576(c)
Bromine pentafluoride	7789-30-2	0.057600	0.240000
Catechol (Pyrocatechol)	120-80-9	1.665600	6.984000
Cesium hydroxide	21351-79-1	0.165600	0.672000
Diisopropylamine	108-18-9	1.665600	6.984000
N-Ethylmorpholine	100-74-3	1.915200	8.040000
Phosphorus pentachloride	10026-13-8	0.084000	0.336000
Thionyl chloride	7719-09-7	0.254400(c)	0.984(c)
<u>GENERAL USE CHEMICALS</u>			
tert Butyl chromate, as CrO₃	1189 85 1	0.005040(e)	0.019440(e)
n-Butyl glycidyl ether (BGE)	2426-08-6	11.244000	47.208000
Calcium hydroxide	1305-62-0	0.417600	1.752000
Carbon black	1333-86-4	0.290400	1.200000
Chlorinated diphenyl oxide	55720-99-5	0.040800	0.170400
Chlorine trifluoride	7790-91-2	0.020160(c)	0.0768(c)
o-Chlorostyrene	2039-87-4	23.736000	99.672000
Chromyl chloride	14977 61 8	0.012480	0.050400
Diethylene triamine	111-40-0	0.333600	1.392000
Ethanolamine	141-43-5	0.667200	2.784000
Ethylidene norbornene	16219-75-3	1.267200(c)	4.896(c)
Ethyl silicate	78-10-4	7.080000	29.736000
Germanium tetrahydride	7782-65-2	0.050400	0.211200
Hexachloronaphthalene	1335-87-1	0.016560	0.067200
Iodine	7553-56-2	0.050400(c)	0.1944(c)
Iron salts, soluble, as Fe		0.084000	0.336000
Morpholine	110-91-8	5.829600	24.480000
Octachloronaphthalene	2234-13-1	0.008400	0.033600
Pentachloronaphthalene	1321-64-8	0.040800	0.170400
Silicon tetrahydride (Silane)	7803-62-5	0.583200	2.448000
Sodium bisulfite	7631-90-5	0.417600	1.752000
Sodium hydroxide	1310-73-2	0.100800(c)	0.384(c)
Terphenyls	26140-60-3	0.254400(c)	0.984(c)
Tetrachloronaphthalene	1335-88-2	0.165600	0.672000
Trichloronaphthalene	1321-65-9	0.417600	1.752000
<u>SUPPLEMENTAL LIST OF CHEMICALS</u>			
Calcium oxide	1305-78-8	0.165600	0.672
Cyanogen	460-19-5	1.665600	6.984000
Dicyclopentadiene	77-73-6	2.498400	10.488000

* The notation (c) indicates those contaminants with ceiling limits which are emission rates averaged over a one-hour period. Those contaminants without such a notation are emission rates per hour averaged over a twenty-four hour period.

SECTION 9. NR 445.05(4)(intro.), (a) and (b) are amended to read:

NR 445.05(4)(intro.) Except as provided in par. (c), ~~as of October 1, 1991,~~ no owner or operator of a stationary source on which construction or modification last commenced on or before October 1, 1988, may cause, allow or permit emissions from the source of a hazardous air contaminant listed in Table 4 of s. NR 445.04 in such quantity or duration as to cause ambient air concentrations which exceed the limits in par. (a) or (b).

(a) 24-hour. 1. Two and four-tenths percent of the threshold limit value - time weighted average established by the American conference of governmental industrial hygienists in the threshold limit values and biological exposure indices for ~~1987-1988~~ 1990-1991, incorporated by reference in ch. NR 484, for any consecutive 24-hour averaging period; or

2. Ten percent of the threshold limit value - time weighted average established by the American conference of governmental industrial hygienists in the threshold limit values and biological exposure indices for ~~1987-1988~~ 1990-1991, incorporated by reference in ch. NR 484, for any 24-hour averaging period if the hazardous air contaminant is emitted no more than 5 days in any consecutive 30-day period and if the department determines under s. NR 445.06(1) that such limits will not pose a threat to public health or welfare.

(b) One-hour. Ten percent of the threshold limit value - ceiling established by the American conference of governmental industrial hygienists in the threshold limit values and biological exposure indices for ~~1987-1988~~ 1990-1991, incorporated by reference in ch. NR 484, for any one-hour averaging period.

SECTION 10. NR 445.05(5) is amended to read:

NR 445.05(5) INCINERATORS. Any owner or operator of a stationary source

on which construction or modification last commenced on or before October 1, 1988 and which combusts municipal solid waste as defined in s. NR 500.03(86) or infectious waste shall comply with ~~sub-~~ subs. (1) and (4), and shall control emissions of hazardous air contaminants listed in Table 3 of s. NR 445.04 to a level which is the lowest achievable emission rate. A source which combusts refuse derived fuel in a boiler and obtains less than 50% of its heat input from the refuse derived fuel is not subject to this subsection.

SECTION 11. NR 445.05(6)(intro.), (a)1.(intro.), 2.(intro.) and 3.(intro.) are amended to read:

NR 445.05(6)(intro.) COMPLIANCE REQUIREMENTS. Any source whose allowable emissions of any hazardous air contaminant in Table 1, 2, 3 or 4 of s. NR 445.04 is equal to or greater than the emission rate listed in the table for the hazardous air contaminant for the respective stack height and any incinerator subject to sub. (5) shall achieve compliance with the emission limits of this section according to the compliance schedules in this subsection. Any source whose allowable emissions of diisobutyl ketone, methylene bis(4-cyclohexylisocyanate), p-nitrochlorobenzene or xylidine is equal to or greater than the emission rate as listed in Table 4 for the respective stack height on the effective date of this rule...[revisor insert date] shall achieve compliance with sub. (4) according to the compliance schedule in par. (b)1m., 2. and 3.

(a)1.(intro.) The Except as provided for in par. (am), the owner or operator of any facility whose actual emissions of volatile organic compounds or particulate matter for calendar year 1986 exceeded 100 tons shall:

2.(intro.) The Except as provided for in par. (am), the owner or operator of any facility whose actual emissions for calendar year 1986 of volatile

organic compounds and of particulate matter were less than 100 tons for each of the 2 air contaminants, but whose annual allowable emissions of any air contaminant for which an ambient air quality standard has been promulgated under section 109 of the federal clean air act exceeds 100 tons, shall:

3.(intro.) The Except as provided for in par. (am), the owner or operator of any facility whose annual allowable emissions of each air contaminant for which an ambient air quality standard has been promulgated under section 109 of the federal clean air act is 100 tons or less shall:

SECTION 12. NR 445.05(6)(am) and (b)1m. are created to read:

NR 445.05(6)(am) Compliance schedule for chromyl chloride, tert-butyl chromate, propylene oxide and anisidine. The owner or operator of any stationary source which emits chromyl chloride, tert-butyl chromate, propylene oxide or anisidine shall comply with the following schedule for these contaminants:

1. Notify the department's bureau of air management in writing by 3 months after the effective date of this rule...[revisor insert date] which of the hazardous air contaminants the source is capable of emitting and the allowable emissions of each contaminant by the source;

2. Submit to the department by 6 months after the effective date of this rule...[revisor insert date] a compliance plan for achieving compliance with sub. (3) for these contaminants; and

3. Achieve final compliance with sub. (3) for these contaminants by 18 months after the effective date of this rule...[revisor insert date] if compliance consists of measures other than installation of emission control equipment (e.g., material substitution), or by 30 months after the effective date of this rule...[revisor insert date] if compliance requires installation of control equipment.

(b)1m. Notify the department's bureau of air management in writing by January 1, 1992 which of diisobutyl ketone, methylene bis(4-cyclohexylisocyanate), p-nitrochlorobenzene and xylidine the source is capable of emitting and the allowable emissions of each substance by the source;

SECTION 13. NR 445.05(6)(c) is amended to read:

NR 445.05(6)(c) Department review. The department shall review any compliance plan submitted under par. (a) or (am) to determine whether the control technology is adequate. Department approval, conditional approval, or disapproval of any compliance plan shall be completed within 6 months after the applicable deadline date provided in par. (a)1.b., 2.b. ~~or~~ 3.b. or (am)2. If the department does not complete its review and approve, disapprove or conditionally approve a source's compliance plan within 6 months after the applicable deadline date provided in par. (a)1.b., 2.b. ~~or~~ 3.b. or (am)2, the source's compliance requirements under par. (a)1.c., 2.c. ~~or~~ 3.c. or (am)3 shall be extended by 6 additional months.

SECTION 14. NR 445.05(6)(f)1. and 3.(intro.) are amended to read:

NR 445.05(6)(f)1. The department may, at the request of the owner or operator of a source, grant an extension of any compliance deadline in par. (a) or (am) for a period not to exceed 6 months.

3.(intro.) Notwithstanding the compliance deadlines in par. (a)1.c., 2.c. ~~and~~ 3.c. and (am)3, if the department is required to review a source's compliance plan under par. (c), the source shall achieve final compliance with subs. (1) to (3):

SECTION 15. NR 445.05(6)(g)1m. is created to read:

NR 445.05(6)(g)1m. Notify the department's bureau of air management in writing by January 1, 1992 which of diisobutyl ketone, methylene bis(4-cyclohexylisocyanate), p-nitrochlorobenzene and xylidine the source is capable of emitting and the allowable emissions of each substance by the source;

SECTION 16. NR 445.06(4) is amended to read:

NR 445.06(4) The department staff shall consult with the department of health and social services prior to establishing an emission limit ~~for any hazardous air contaminant~~ in a permit or order, for any hazardous air contaminant which is not listed in Table 1, 2, 3 or 4 of s. NR 445.04 or in threshold limit values and biological exposure indices for ~~1987-1988~~ 1990-1991 adopted by the American conference of governmental industrial hygienists, incorporated by reference in ch. NR 484.

SECTION 17. NR 484.09(2) is amended to read:

NR 484.09(2) The threshold limit values and biological exposure indices for 1987-88, published by the American conference of governmental industrial hygienists (publication ISBN:0-936712-72-4), are incorporated by reference ~~in~~ for ss. NR 445.04(1)(a)1. and 2. and (b) and (2)(a) and (b), and 445.05(1)(a)1. and 2. and (b) and (2)(a) and (b) ~~and 445.06(4)~~. This publication may be purchased for personal use from the American Conference of Governmental Industrial Hygienists (ACGIH), 6500 Glenway Avenue, Cincinnati, Ohio 45211.

SECTION 18. NR 484.09(3) is created to read:

NR 484.09(3) The threshold limit values and biological exposure indices for 1990-91, published by the American conference of governmental industrial hygienists (publication ISBN:0-936712-86-4), are incorporated by reference for ss. NR 445.04(4)(a)1. and 2. and (b), 445.05(4)(a)1. and 2. and (b) and 445.06(4). This publication may be purchased for personal use from the American Conference of Governmental Industrial Hygienists (ACGIH), 6500 Glenway Avenue, Cincinnati, Ohio 45211.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on September 26, 1991.

The rule shall take effect the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin

February 13, 1992

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By

Carroll D. Besadny

Carroll D. Besadny, Secretary

(SEAL)

RECEIVED
FEB 25 1992
Revisor of Statutes
Bureau

