

20.2.72.502 TOXIC AIR POLLUTANTS AND EMISSIONS

Table A- Noncarcinogens

SUBSTANCE	OEL mg/m ³	Emissions in pounds per hour
Acetic acid.....	25.0	1.67
Acetic anhydride.....	20.0	1.33
Acetylene dichloride, See 1,2-Dichloroethylene		
Acetylene tetrabromide.....	15.0	1.00
Acetylsalicylic acid.....	5.00	0.333
Aldrin.....	0.25	0.0167
Allyl alcohol.....	5.00	0.333
Allyl glycidol ether.....	22.0	1.47
Allyl propyl disulfide.....	12.0	0.800
Aluminum		
metal & oxide.....	10.0	0.667
pyro powders.....	5.00	0.333
welding fumes.....	5.00	0.333
soluble salts.....	2.00	0.133
alkyls not otherwise classified.....	2.00	0.133
2-Aminoethanol, See Ethanolamine		
2-Aminopyridine.....	2.00	0.133
3-Amino 1, 2, 4-triazole, See Amitrole.....		
Amitrole.....	0.200	0.0133
Ammonia.....	18.0	1.20
Ammonium chloride fume.....	10.0	0.667
Ammonium sulfamate.....	10.0	0.667
n-Amyl acetate.....	530	35.3
Sec-Amyl acetate.....	665	44.3
Aniline homologues.....	10.0	0.667
Anisidine (p-isomer).....	0.500	0.0333
Antimony as Sb.....	0.500	0.0333
ANTU.....	0.300	0.0200
Asphalt (petroleum) fumes.....	5.00	0.333
Atrazine.....	5.00	0.333
Azinphos-methyl.....	0.200	0.0133
Barium, soluble compounds, as Ba.....	0.500	0.0333
Benomyl.....	10.00	0.667
Benzoyl peroxide.....	5.00	0.333
Bismuth telluride.....	10.0	0.667
Se-doped.....	5.00	0.333
Borates, tetra, sodium salts.....		
anhydrous.....	1.00	0.0667
decahydrate.....	5.00	0.333
pentahydrate.....	1.00	0.0667
Boron oxide.....	10.0	0.667
Boron tribromide.....	10.0	0.667
Boron trifluoride.....	3.00	0.200
Bromacil.....	10.0	0.667
Bromine.....	0.700	0.0467
Bromine pentafluoride.....	0.700	0.0467

Bromochloromethane, see Chlorobromomethane.....		
Butanethiol, see Butyl mercaptan		
2-Butoxyethanol.....	120	8.00
n-Butyl acetate.....	710	47.3
sec-Butyl acetate.....	950	63.3
tert-Butyl acetate.....	950	63.3
Butyl acrylate.....	55.0	3.67
n-Butyl alcohol.....	150	10.0
Sec-Butyl alcohol.....	305	20.3
tert-Butyl alcohol.....	300	20.0
Butylamine.....	15.0	1.00
tert-Butyl chromate, as CrO ₃	0.100	0.00667
n-Butyl glycidol ether (BGE).....	135	9.00
n-Butyl lactate.....		25.0
Butyl mercaptan.....	1.50	0.10
o-sec-Butylphenol.....	30.0	2.00
p-tert-Butyltoluene.....	60	4.00
Cadmium Dusts as Cd.....	0.0500	0.00333
fume as Cd.....	0.0500	0.00333
Calcium hydroxide.....	5.00	0.333
Calcium oxide.....	2.00	0.133
Camphor, synthetic.....	12.0	0.800
Captafol.....	0.100	0.00667
Carbofuran.....	0.100	0.00667
Carbon black.....	3.50	0.233
Carbon tetrabromide.....	1.40	0.0933
Carbonyl fluoride.....	5.00	0.333
Cesium hydroxide.....	2.00	0.133
Chlorinated diphenyl oxide.....	0.500	0.0333
Chlorine dioxide.....	0.300	0.0200
Chlorine trifluoride.....	0.400	0.0267
Chloroacetaldehyde.....	3.00	0.200
a-Chloroacetophenone.....	0.300	0.0200
Chloroacetyl chloride.....	0.200	0.0133
O-Chlorobenzylidene malonitrile.....	0.400	0.0267
Chlorobromomethane.....	1050	70.0
2-Chloro-1,3-butadiene, see B-Chloroprene		
Chlorodiphenyl (42% chlorine).....	1.00	0.0667
Chlorodiphenyl (54% chlorine).....	0.500	0.033
2-Chloroethanol, see Ethylene chlorohydrin		
1-Chloro-1-nitropropane.....	10.0	0.667
Chloropicrin.....	0.700	0.0467
o-Chlorostyrene.....	285	19.0
o-Chlorotoluene.....	250	16.7
2-Chloro-6-(trichloromethyl)pyridine, see Nitrapyrin		
Chlorpyrifos.....	0.200	0.0133
Chromium metal.....	0.500	0.0333
Clopidol.....	10.0	0.667
Cobalt as Co.....	0.100	0.00667
metal, dust & fume.....	0.100	0.00667
Copper		
fume.....	0.200	0.0133
dusts & mists, as Cu.....	1.00	0.0667
Cotton dust, raw.....	0.200	0.0133

Crotonaldehyde.....	6.00	0.400
Crufomate.....	5.00	0.333
Cyanamide.....	2.00	0.133
Cyanogen.....	20.0	1.33
Cyanogen chloride.....	0.600	0.0400
Cyclohexane.....	1050	70.0
Cyclohexanol.....	200	13.3
Cyclohexanone.....	100	6.67
Cyclohexene.....	1015	67.7
Cyclohexylamine.....	40.0	2.67
Cyclonite.....	1.50	0.100
Cyclopentadiene.....	200	13.3
Cyhexatin.....	5.00	0.333
DDT (Dichlorodiphenyl trichloroethane).....	1.00	0.0667
Decaborane.....	0.300	0.0200
Demeton.....	0.100	0.00667
Diacetone alcohol.....	240	16.0
1,2-Diaminoethane See Ethylenediamine		
Diazinon.....	0.100	0.00667
Diborane.....	0.100	0.00667
2-N-Dibutylaminoethanol.....	14.0	0.933
Dibutyl phosphate.....	5.00	0.333
Dichloroacetylene.....	0.400	0.0267
o-Dichlorobenzene.....	300	20.0
1,3-Dichloro-5,5-dimethyl hydantoin.....	0.200	0.0133
1,2-Dichloroethylene.....	790	52.7
Dichlorofluoromethane.....	40.0	2.67
1,1-Dichloro-1-nitroethane.....	10.0	0.667
2,2-Dichloropropionic acid.....	6.00	0.400
Dicrotophos.....	0.250	0.0167
Dicyclopentadiene.....	30.0	2.00
Dicyclopentadienyl iron.....	10.0	0.667
Dieldrin.....	0.250	0.167
Diethylamine.....	30.0	2.00
2-Diethylaminoethanol.....	50.0	3.33
Diethylene triamine.....	4.00	0.267
Diethyl ether, see Ethyl ether		
Diethyl Ketone.....	705	47.0
Diethyl phthalate.....	5.00	0.333
Difluorodibromomethane.....	860	57.3
Diglycidal ether (DGE).....	0.500	0.0333
Diisobutyl ketone.....	250	16.7
Diisopropylamine.....	20.0	1.33
Dimethyl acetamide.....	35.0	2.33
Dimethylamine.....	18.0	1.20
Dimethylaminobenzene, see Xylidene		
Dimethyl-1,2-dibromo-2-dichloroethyl phosphate, see Naled		
2,6-Dimethyl-4-heptanone, see Diisobutyl ketone		
Dinitolmide.....	5.00	0.333
Dinitrobenzene (all isomers).....	1.00	0.0667
3,5-Dinitro-o-toluamide, see Dinitolmide		
Dioxathion.....	0.200	0.0133
Diphenylamine.....	10.0	0.667
Diphenylmethane diisocyanate, see Methylene bisphenyl isocyanate		

Dipropylene glycol methyl ether.....	600	40.0
Dipropyl ketone	235	15.7
Diquat.....	0.500	0.0333
Disulfiram	2.00	0.133
Disulfoton.....	0.100	0.00667
2,6-Ditert. butyl-p-cresol.....	10.0	0.667
Diuron	10.0	0.667
Divinyl benzene	50.0	3.33
Endosulfan.....	0.100	0.00667
Endrin	0.100	0.00667
Enzymes, see Subtilisins		
EPN.....	0.500	0.0333
2,3-Epoxy-1-propanol, see Glycidol		
Ethaneithiol, see Ethyl mercaptan		
Ethanolamine.....	8.0	0.533
Ethion.....	0.400	0.0267
Ethyl acetate	1400	93.3
Ethylamine	18.0	1.20
Ethyl amyl ketone	130	8.67
Ethyl bromide	890	59.3
Ethyl butyl ketone	230	15.3
Ethylene chlorohydrin.....	3.00	0.200
Ethylenediamine	25.0	1.67
Ethyl ether	1200	80.0
Ethy formate	300	20.0
Ethylidene norbornene.....	25.0	1.67
Ethyl mercaptan.....	1.00	0.0667
N-Ethylmorpholine	23.0	1.53
Ethyl silicate.....	85.0	5.67
Fenamiphos	0.100	0.00667
Fensulfothion.....	0.100	0.00667
Fenthion	0.200	0.0133
Ferbam	10.0	0.667
Ferrovandium dust	1.00	0.0667
Fluorides, as F	2.50	0.167
Fluorine	2.00	0.133
Fonofos.....	0.100	0.00667
Formamide	30.0	2.00
Formic acid.....	9.00	0.600
Furfural	8.00	0.533
Furfuryl alcohol	40.0	2.67
Gasoline.....	900	60.0
Germanium tetrahydride	0.600	0.0400
Glutaraldehyde.....	0.700	0.0467
Glycidol	75.0	5.00
Hafnium.....	0.500	0.033
2-Heptanone, see Methyl n-amyl ketone		
3-Heptanone, see Ethyl butyl ketone		
Hexachloronaphthalene.....	0.200	0.0133
Hexfluoroacetone	0.700	0.0467
2-Hexanone, see Methyl n-butyl ketone		
sec-Hexyl acetate.....	300	20.0
Hexylene glycol.....	125	8.33
Hydrogenated terphenyls.....	5.00	0.333

Hydrogen bromide	10.0	0.667
Hydrogen peroxide.....	1.50	0.100
4-Hydroxy-4-Methyl-2-pentanone, see Diacetone alcohol		
2-Hydroxypropyl acrylate	3.00	0.200
Indene.....	45.0	3.00
Indium & compounds as In	0.100	0.00667
Iodine	1.00	0.0667
Iodoform.....	10.0	0.667
Iron oxide fume (Fe ₂ O ₃) as Fe	5.00	0.333
Iron pentacarbonyl as Fe	0.800	0.0533
Iron salts, soluble, as Fe	1.00	0.0667
Isoamyl acetate	525	35.0
Isoamyl alcohol.....	360	24.0
Isobutyl acetate	700	46.7
Isobutyl alcohol.....	150	10.0
Isooctyl alcohol.....	270	18.0
Isophorone diisocyanate	0.0900	0.00600
Isopropoxyethanol.....	105	7.00
Isopropyl acetate	950	63.3
Isopropyl alcohol.....	980	65.3
Isopropylamine	12.0	0.800
N-Isopropylaniline	10.0	0.667
Isopropyl ether	1050	70.0
Isopropyl glycidyl ether (IGE).....	240	16.0
Ketene	0.900	0.0600
Lithium hydride.....	0.0250	0.0167
Magnesium oxide fume.....	10.0	0.667
Malathion	10.0	0.667
Manganese as Mn		
dust.....	5.00	0.333
fume	1.00	0.0667
Mesityl oxide	60	4.00
Methacrylic acid	70.0	4.67
Methanethiol, see Methyl mercaptan		
Methomyl	2.50	0.167
4-Methoxyphenol.....	5.00	0.333
Methyl acetate.....	610	40.7
Methyl acrylate	35.0	2.33
Methylacrylonitrile	3.00	0.200
Methylamine.....	12.0	0.800
Methyl amyl alcohol, see Methyl isobutyl carbinol		
Methyl n-amyl ketone	235	15.7
N-Methyl aniline.....	2.00	0.133
Methyl n-butyl ketone	20.0	1.33
Methyl 2-cyanoacrylate	8.00	0.533
Methylcyclohexanol	235	15.7
o-Methylcyclohexanone	230	15.3
Methyl demeton	0.500	0.033
Methylene bisphenyl isocyanate (MDI)	0.200	0.0133
Methylene bis(4-cyclohexylisocyanate).....	0.110	0.00733
Methyl ethyl ketone peroxide	1.50	0.100
Methyl formate	250	16.7
5-Methyl-3-heptanone, see Ethyl amyl ketone		
Methyl isoamyl ketone	240	16.0

Methyl isobutyl carbinol.....	100	6.67
Methyl isopropyl ketone.....	705	47.0
Methyl mercaptan.....	1.00	0.0667
Methyl parathion.....	0.200	0.0133
Methyl propyl ketone.....	700	46.7
Methyl silicate.....	6.00	0.400
a-Methyl styrene.....	240	16.0
Metribuzin.....	5.00	0.333
Mevinphos.....	0.100	0.00667
Molybdenum as Mo		
soluble compounds.....	5.00	0.333
insoluble compounds.....	10.0	0.667
Monocrotophos.....	0.250	0.0167
Morpholine.....	70.0	4.67
Naled.....	3.00	0.2
Nickel Metal.....	1.00	0.0667
Nicotine.....	0.500	0.0333
Nitrapyrin.....	10.0	0.667
Nitric acid.....	5.00	0.333
p-Nitroaniline.....	3.00	0.200
p-Nitrochlorobenzene.....	3.00	0.200
Nitroethane.....	310	20.7
Nitrogen trifluoride.....	300	2.00
Nitroglycerin.....	0.500	0.00333
Nitromethane.....	250	16.7
1-Nitropropane.....	90.0	6.00
Nitrotoluene.....	11.0	0.733
Nitrotrichloromethane, see Chloropicrin		
Nonane.....	1050	70.0
Octachloronaphthalene.....	0.100	0.0067
Octane.....	1450	96.7
Oil mist, mineral.....	5.00	0.333
Osmium tetroxide as Os.....	0.00200	0.000133
Oxalic acid.....	1.00	0.0667
Oxygen difluoride.....	0.100	0.00667
Paraffin wax fume.....	2.00	0.133
Paraquat respirable sizes.....	0.100	0.00667
Pentaborane.....	0.0100	0.000667
Pentachloronaphthalene.....	0.500	0.0333
2-Pentanone, see Methyl propyl ketone.....		
Perchloromethyl mercaptan.....	0.800	0.0533
Perchloryl fluoride.....	14.0	0.933
Phenacyl chloride, see a-Chloroacetophenone		
Phenothiazine.....	5.00	0.333
Phenyl ether, vapor.....	7.00	0.467
Phenyl glycidyl ether (PGE).....	6.00	0.400
Phenyl mercaptan.....	2.00	0.133
Phenylphosphine.....	0.250	0.0167
Phorate.....	0.0500	0.00333
Phosdrin, see Mevinphos		
Phosphoric acid.....	1.00	0.0667
Phosphorus oxychloride.....	0.600	0.0400
Phosphorus pentachloride.....	1.00	0.0667
Phosphorus pentasulfide.....	1.00	0.0667

Phosphorus trichloride	1.50	0.100
m-Phthalodinitrile.....	5.00	0.333
Picloram	10.0	0.667
Picric acid.....	0.100	0.00667
Pindone.....	0.100	0.00667
Piperazine dihydrochloride	5.00	0.333
2-Pivalyl-1,3-indandione, see Pindone		
Platinum		
metal.....	1.00	0.0667
soluble salts, as Pt.....	0.00200	0.000133
Potassium hydroxide	2.00	0.133
Propargyl alcohol.....	2.00	0.133
Propionic acid.....	30.0	2.00
n-Propyl acetate	840	56.0
Propyl alcohol.....	500	33.3
Propylene glycol dinitrate.....	0.300	0.200
n-Propyl nitrate.....	105	7.00
Pyrethrum	5.00	0.333
Pyridine	15.0	1.00
RDX, see Cyclonite		
Resorcinol.....	45.0	3.00
Rhodium		
metal.....	1.00	0.0667
insoluble compounds, as Rh	1.00	0.0667
soluble compounds, as Rh	0.0100	0.000667
Ronnel.....	10.0	0.667
Rotenone (commercial).....	5.00	0.333
Selenium as Se.....	0.200	0.0133
Sesone	10.0	0.667
Silane, see silicon tetrahydride		
Silicon tetrahydride.....	7.00	0.467
Silver		
metal.....	0.100	0.00667
soluble compounds, as Ag.....	0.0100	0.000667
Sodium azide	0.300	0.0200
Sodium bisulfite.....	5.00	0.333
Sodium 2,4-dichloro-phenoxyethyl sulfate, see Sesone		
Sodium fluoroacetate.....	0.0500	0.00333
Sodium hydroxide	2.00	0.133
Sodium metabisulfite	5.00	0.333
Stibine	0.500	0.0333
Stoddard solvent	525	35.0
Strychnine	0.150	0.0100
Subtilisins (Proteolytic enzymes as 100%		
pure crystalline enzyme)	6.00x10 ⁻⁵	4.00x10 ⁻⁶
Sulfotep	0.200	0.0133
Sulfuric acid	1.00	0.0667
Sulfur monochloride	6.00	0.400
Sulfur pentafluoride	0.100	0.00667
Sulfur tetrafluoride.....	0.400	0.0267
Sulfuryl fluoride.....	20.0	1.33
Sulprofos	1.00	0.0667
Systox, see Demeton		
2,4,5-T.....	10.0	0.667

Tantalum	5.00	0.333
TEDP, see Sulfotep		
Tellurium & Compounds as Te	0.100	0.00667
Tellurium hexafluoride as Te	0.200	0.0133
Temephos	10.0	0.667
TEPP	0.0500	0.00333
Terphenyls	5.00	0.333
Tetrachloronaphthalene	2.00	0.133
Tetramethyl succinoitrile	3.00	0.200
Tetranitromethane	8.00	0.533
Tetrasodium pyrophosphate	5.00	0.333
Tetryl	1.50	0.100
Thallium, soluble compounds, as Tl	0.100	0.00667
4,4-Thiobis (6 tert, butyl-m-cresol)	10.0	0.667
Thioglycolic acid	4.00	0.267
Thionyl chloride	5.00	0.333
Thiram	5.00	0.333
Tin		
metal	2.00	0.133
oxide & inorganic compounds, except SnH ₄ , as Sn	2.00	0.133
organic compounds as Sn	0.100	0.00667
m-Toluidine	9.00	0.600
Tributyl phosphate	2.50	0.167
Trichloroacetic acid	7.00	0.467
Trichloronaphthalene	5.00	0.333
Trichloronitromethane, See Chloropicrin		
1,2,3-Trichloropropane	300	20.0
Tricyclohexyltin hydroxide, see Cyhexatin		
Trimellitic anhydride	0.0400	0.00267
Trimethylamine	24.0	1.60
Trimethyl benzene	125	8.33
Trimethyl phosphite	10.0	0.667
2,4,6-Trinitrophenol, see Picric acid		
2,4,6-Trinitrophenylmethylnitramine, see Tetryl		
2,4,6-Trinitrotoluene (TNT)	0.500	0.0333
Triorthoseryl phosphate	0.100	0.00667
Triphenyl amine	5.00	0.333
Triphenyl phosphate	3.00	0.200
Tungsten as W		
insoluble compounds	5.00	0.333
soluble compounds	1.0	37.3
Turpentine	560	37.3
Uranium (natural) soluble & insoluble compounds as U	0.200	0.0133
n-Valeraldehyde	175	11.7
Vanadium, as V ₂ O ₅ respirable dust & fume	0.0500	0.00333
Vinyl toluene	240	16.0
VM & P Naphtha	1350	90.0
Warfarin	0.100	0.00667
Wood dust (certain hard woods as beech & oak)	1.00	0.0667
soft wood	5.00	0.333
m-Xylene a,a-diamine	0.100	0.00667
Xylidine	10.0	0.667
Yttrium	1.00	0.0667
Zinc chloride fume	1.00	0.0667

Zinc oxide fume	5.00	0.333
Zirconium compounds as Zr.....	5.00	0.333

Table B - Known or Suspected Carcinogens

SUBSTANCE	OEL mg/m ³	Emissions in pounds per hour
Coal tar volatiles, as benzene solubles.....	0.200	0.0133
B-Naphthylamine.....	0.00300*	2.00x10 ⁻⁴
N-Phenyl-beta-naphthylamine.....	5.00**	0.333
Phenylhydrazine.....	20.0	1.33
o-Tolidine.....	11.0**	0.733
p-Tolidine.....	9.00	0.600
Vinyl cyclohexene dioxide.....	60.0	4.00

FOOTNOTES

The emissions in pounds per hour in Section 502 were derived using the formula listed below:

$$\text{emission level (lbs/hr)} = \text{OEL (mg/m}^3\text{)} \div 15$$

* = Compound for which an OEL is not listed by the ACGIH. Value derived by using the minimum detectable level listed in the NIOSH "Manual of Analytical Methods", Third Edition.

** = Compound for which an OEL is not listed by the ACGIH and for which there is no chemical specific analytical method listed in the NIOSH "Manual of Analytical Methods", Third Edition. A minimum detectable level (MDL) was derived by using the MDL of a similar compound listed in the NIOSH analytical methods or by assigning the average MDL for a class of compounds such as "halogenated hydrocarbons". In some cases the lowest MDL of the whole class was used.

Table C - Stack Height Release Correction Factor

Sources may choose to use a correction factor for the release height of emissions for the purpose of determining whether a permit is necessary for the emission of a toxic air pollutant. To apply the correction go to the table below and find the minimum height of release for the toxic air pollutant and select the correction factor (CF) which corresponds to that figure. If the height of release is between two values, the lower number shall be selected; or in the event of multiple releases of the same substance from different release heights, the source may choose to use a weighted average CF, weighted by the emission rate at each. The emissions in pounds per hour is then multiplied by the CF (see below). If the emissions from your source exceed the resulting number, you must apply for a permit from the Department. Remember, this must be done for each toxic air pollutant.

$$CF \times \text{Emissions in Pounds per Hour}$$

where: E - emission rate (pounds per hour)

OEL - occupational exposure limit (mg per cubic meter)

CF is a correction factor, shown in the table below, which accounts for release height.

Release Height in Meters	Correction Factor (CF)*
Less than 3	1
10	5
20	19
30	41
40	71
50	108
60	152
70	202
80	255
90	317
100	378
110	451
120	533
130	617
140	690
150	781
160	837
170	902
180	1002
190	1066
200	1161

[6-14-94; 11-30-95; 8-14-98]

HISTORY OF 20.2.72 NMAC:

Pre-NMAC History:

Material in the part was derived from that previously filed with the commission of public records - state records center and archives:

AQCR 702, Permits, filed 7-31-72

EIB/AQCR 702, Air Quality Control Regulation 702 - Permits, filed 8-18-87

EIB/AQCR 702, Air Quality Control Regulation 702 - Permits, filed 10-19-88

EIB/AQCR 702, Air Quality Control Regulation 702 - Permits, filed 5-29-90

EIB/AQCR 702, Air Quality Control Regulation 702 - Permits, filed 4-12-94

EIB/AQCR 702, Air Quality Control Regulation 702 - Permits, filed 5-13-94.

History of Repealed Material: [Reserved]

Other History:

EIB/AQCR 702, Air Quality Control Regulation 702 - Permits, filed 5-13-94 renumbered to 20 NMAC 2.72, Air Quality Statewide - Construction Permits, filed 10-30-95

20 NMAC 2.72, Air Quality Statewide - Construction Permits, filed 10-30-95 renumbered and amended to 20.2.72 NMAC, Air Quality Statewide - Construction Permits, effective 2-2-01.