



# Facts about Air Quality Permit Rules

Air Quality/Federal and State Regulations/#4.03/December 2003

The permit rules in Minnesota Rules chapter 7007 affect a large number of facilities in Minnesota, and provide for several types of permits, depending upon a facility's emissions and needs. A facility may be able to receive a "registration permit" if its actual emissions of air pollutants are low.

"General permits" are available for some types of facilities that have similar operations. Other facilities require individual permits tailored specifically to their facility.

- The registration permits allow facilities to submit much less detailed permit application forms. Four options are available, as follows:
  - ⇒ Option A: A facility needs a permit solely because a certain New Source Performance Standard applies;
  - ⇒ Option B: A facility purchases or uses less than 2,000 gallons of volatile organic compound containing materials in any given 12 months and has no other emissions;
  - ⇒ Option C: A facility has emissions only from boilers, internal combustion engines and volatile organic compound containing materials (or a combination of these emissions);
  - ⇒ Option D: A facility has **actual** emissions that are less than 50 percent of federal thresholds (see Table 1, next page) for volatile organic compounds, carbon monoxide, nitrogen oxides, particulate matter **and** fine particulate matter and is in a part of Minnesota that meets federal standards for ambient air.
- Facilities can choose to include more than one operating scenario in their permits, meaning that they can alter their operations to achieve economic advantages without having to wait for a permit. This is inherent in a general permit, and can be included in an individual permit.
- The process for amending existing individual permits for insignificant, minor and moderate modifications has been streamlined. Facilities will not have to wait as long to begin construction for these types of amendments.





**Table 1**  
**Permitting Thresholds (Based on Potential to Emit)**

<b>Pollutant</b>	<b>State Permit Threshold</b>	<b>Federal Permit Threshold</b>
Volatile organic compounds (VOC)	100 tons per year	100 tons per year
Carbon monoxide (CO)	100 tons per year	100 tons per year
Nitrogen Oxides (NO <sub>x</sub> )	100 tons per year	100 tons per year
Sulfur dioxide (SO <sub>2</sub> )	50 tons per year	100 tons per year
Fine particulate matter (PM <sub>10</sub> )	25 tons per year	100 tons per year
Combined HAPs*	25 tons per year	25 tons per year
Single HAPs*	10 tons per year (each)	10 tons per year (each)
Lead	0.5 tons per year	10 tons per year

\* HAP = Hazardous Air Pollutant, listed in Table 3

### What triggers the need for a permit?

If your facility has the potential to release pollutants into the air in excess of the thresholds in Table 1, your facility will need either a state or a federal permit.

In addition, there are categories of sources that require permits because new or modified facilities in the categories are subject to New Source Performance Standards. "Performance Standards" define the best way to operate a process to minimize the pollutants emitted. These categories are listed on Table 2.

### What's the difference between a state permit and a federal permit?

In Minnesota, the Minnesota Pollution Control Agency (MPCA) issues both state and federal permits. Facilities whose potential annual emissions of pollutants fall below federal thresholds but above the state thresholds (where the thresholds are different) will receive state permits. Most state permits will be non-expiring, whereas federal permits will need to be reissued every five years. Registration permits are state permits.

### Can you tell me whether I need a permit?

Whether or not you need a permit for your facility depends in part on your "potential to emit." Potential to emit, or PTE, can be very different from your actual emissions.

However, this calculation is the first step to take in determining whether you need a permit, and the type of permit you may be eligible for.

Figuring your facility's PTE is a complex process. It requires identifying emission sources, the pollutants released by those sources, and how much pollution would be released if the emission unit were working at maximum design capacity for 24 hours per day, 365 days per year.

The MPCA has created many guidance materials to assist permit applicants, including a permit application guide, a handbook on registration permits, and a number of fact sheets. All are available by calling the MPCA Customer Assistance Center at (651) 297-2274 or (800) 646-6247.

### How do I apply for a new permit when my existing permit expires?

If your existing total facility permit was issued prior to November 18, 1993 (the effective date of the current permit rule), you needed to apply for a new permit according to the deadline dates in Minn. R. 7007.0350. If you have a total facility permit that was issued under the existing rules, you need to reapply by the expiration date listed on your permit. Some permits issued under the existing rules are non expiring.



If you've had a Title V permit issued under the current rule, about nine months before it's due to expire, you will receive in the mail a application package including a summary of what we currently have on file for your permit, as well as forms to be used for supplementing this information. We've tried to make applying for reissuance less burdensome than the original Title V applications. The completed application is due back to the MPCA 180 days before the current permit expires.

### **I have a small business. Can the MPCA do anything additional to help me out?**

The MPCA has two ways to assist small businesses comply with air quality regulations.

The first is the Small Business Assistance Program, which is a group of Air Quality staff who help businesses with fewer than 100 employees understand and comply with air quality requirements.

The telephone number for the Small Business Assistance Program is (651) 282-6143 or (800) 657-3938.

The other option is the Small Business Air Quality Ombudsman, who serves as a representative for small businesses to ensure that they get the assistance they need. The Ombudsman can also help interpret regulations, provide mediation in the event of complaints or disputes, and help identify financial resources for pollution control equipment investments. The Ombudsman can be reached at (651) 297-8615 or (800) 985-4247.

### **Need more information?**

Copies of the rules, permit application forms, and fact sheets are available from the Customer Assistance Center at (651) 297-2274 or (800) 646-6247 (within Minnesota only).

MPCA Web site: <http://www.pca.state.mn.us>

**Table 2**  
**Source Categories Subject to New Source Performance Standards**

- Municipal waste combustors
- Sulfuric acid production units
- Fossil-fuel-fired steam generators
- Electric utility steam generating units
- Industrial-commercial-institutional steam generating units
- Incinerators
- Portland cement plants
- Nitric acid plants
- Asphalt concrete plants
- Petroleum refineries
- Storage vessels for petroleum liquids
- Phosphate rock plants
- Ammonium sulfate manufacture
- Graphic arts industry: publication rotogravure printing
- Volatile organic liquid storage vessels
- Secondary lead smelters
- Secondary brass and bronze production plants
- Basic oxygen process furnaces
- Basic oxygen process steelmaking facilities
- Sewage treatment plants
- Primary copper smelters
- Primary zinc smelters
- Primary lead smelters
- Primary aluminum reduction plants
- Phosphate fertilizer industry
- Coal preparation plants
- Beverage can surface coating industry
- Bulk gasoline terminals
- New residential wood heaters
- Rubber tire manufacturing industry
- Ferroalloy production facilities
- Steel plants
- Kraft pulp mills
- Glass manufacturing plants
- Grain elevators
- Surface coating of metal furniture
- Stationary gas turbines
- Lime manufacturing plants
- Lead-acid battery manufacturing plants
- Metallic mineral processing plants
- Automobile and light-duty truck surface coating operations
- Onshore natural gas processing plants
- Non-metallic mineral processing plants
- Wool fiberglass insulation manufacturing plants



- Pressure sensitive tape and label surface coating operations
- Industrial surface coating: large appliances
- Metal coil surface coating
- Asphalt processing and asphalt roofing manufacture
- VOC emissions from the polymer manufacturing industry
- Flexible vinyl and urethane coating and printing
- Synthetic fiber production facilities
- Synthetic organic chemical manufacturing
- Petroleum dry cleaners
- Magnetic tape coating facilities
- Industrial surface coating: Surface coating of plastic parts for business machines
- Polymeric coating of supporting substrates facilities
- Municipal solid waste landfills

**Table 3  
Hazardous Air Pollutants**

75070	Acetaldehyde	107302	Chloromethyl methyl ether
60355	Acetamide	126998	Chloroprene
75058	Acetonitrile	1319773	Cresols/Cresylic acid (isomers and mixtures)
98862	Acetophenone	95487	o-Cresol
53963	2-Acetylaminofluorene	108394	m-Cresol
107028	Acrolein	106445	p-Cresol
79061	Acrylamide	98828	Cumene
79107	Acrylic acid	94757	2,4-D, salts and esters
107131	Acrylonitrile	3547044	DDE
107051	Allyl chloride	334883	Diazomethane
92671	4-Aminobiphenyl	132649	Dibenzofurans
62533	Aniline	96128	1,2-Dibromo-3-chloropropane
90040	o-Anisidine	84742	Dibutylphthalate
1332214	Asbestos	106467	1,4-Dichlorobenzene(p)
71432	Benzene	91941	3,3-Dichlorobenzidene
92875	Benzidine	111444	Dichoroethyl ether (Bis (2-chloroethyl) ether)
98077	Benzotrichloride	542756	1,3-Dichloropropene
100447	Benzyl chloride	62737	Dichlorvos
92524	Biphenyl	111422	Diethanolamine
117817	Bis (2-ethylhexyl) phthalate (DEHP)	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
542881	Bis (chloromethyl) ether	64675	Diethyl sulfate
75252	Bromoform	119904	3,3-Dimethoxybenzidine
106990	1,3-Butadiene	60117	Dimethyl aminoazobenzene
156627	Calcium cyanamide	119937	3,3-Dimethyl benzidine
133062	Captan	79447	Dimethyl carbamoyl chloride
63252	Carbaryl	68122	Dimethyl formamide
75150	Carbon disulfide	57147	1,1 Dimethyl hydrazine
56235	Carbon tetrachloride	131113	Dimethyl phthalate
463581	Carbonyl sulfide	77781	Dimethyl sulfate
120809	Catechol	534521	4,6-Dinitro-o-cresol, and salts
133904	Chloramben	51285	2,4-Dinitrophenol
57749	Chlordane	121142	2,4-Dinitrotoluene
778505	Chlorine	123911	1,4-Dioxane (1,4-Diethyleneoxide)
79118	Chloroacetic acid	122667	1,2-Diphenylhydrazine
532274	2-Chloroacetophenone		
108907	Chlorobenzene		
510156	Chlorobenzilate		
67663	Chloroform		



106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	91203	Naphthalene
106887	1,2-Epoxybutane	98953	Nitrobenzene
140885	Ethyl acrylate	92933	4-Nitrobiphenyl
100414	Ethyl benzene	100027	4-Nitrophenol
51796	Ethyl carbamate (Urethane)	79469	2-Nitropropane
75003	Ethyl chloride (Chloroethane)	684935	N-Nitroso-N-methylurea
106934	Ethylene dibromide (Dibromoethane)	62759	N-Nitrosodimethylamine
107062	Ethylene dichloride (1,2-Dichloroethane)	59892	N-Nitrosomorpholine
107211	Ethylene glycol	56382	Parathion
151564	Ethylene imine (Aziridine)	82688	Pentachloronitrobenzene (Quintobenzene)
75218	Ethylene oxide	87865	Pentachlorophenol
96457	Ethylene thiourea	108952	Phenol
75343	Ethylidene dichloride (1,1-Dichloroethane)	106503	p-Phenylenediamine
50000	Formaldehyde	75445	Phosgene
76448	Heptachlor	7803512	Phosphine
118741	Hexachlorobenzene	7723140	Phosphorus
87683	Hexachlorobutadiene	85449	Phthalic anhydride
77474	Hexachlorocyclopentadiene	1336363	Polychlorinated biphenyls (aroclors)
67721	Hexachloroethane	1120714	1,3-Propane sultone
822060	Hexamethylene-1,6-diisocyanate	57578	beta-Propiolactone
680319	Mexamethylphosphoramidate	123386	Propionaldehyde
110543	Hexane	114261	Propoxur (Baygon)
302012	Hydrazine	78875	Propylene dichloride (1,2-Dichloropropane)
7647010	Hydrochloric acid	75569	Propylene oxide
7664393	Hydrogen fluoride (hydrofluoric acid)	75558	1,2-Propylenimine (2-Methyl aziridine)
123319	Hydroquinone	91225	Quinoline
78591	Isophorone	106514	Quinone
58899	Lindane (all isomers)	100425	Styrene
108316	Maleic anhydride	96093	Styrene oxide
67561	Methanol	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
72435	Methoxychlor	79345	1,1,2,2-Tetrachloroethane
74839	Methyl bromide (Bromomethane)	127184	Tetrachloroethylene (Perchloroethylene)
74873	Methyl chloride (Chloromethane)	7550450	Titanium tetrachloride
71556	Methyl chloroform (1,1,1-Trichloroethane)	108883	Toluene
78933	Methyl ethyl ketone (2-Butanone)	95807	2,4-Toluene diamine
60344	Methyl hydrazine	584849	2,4-Toluene diisocyanate
74884	Methyl iodide (Iodomethane)	95534	o-Toluidine
108101	Methyl isobutyl ketone (Hexone)	8001352	Toxaphene (chlorinated camphene)
624839	Methyl isocyanate	120821	1,2,4-Trichlorobenzene
80626	Methyl methacrylate	79005	1,1,2-Trichloroethane
1634044	Methyl tert butyl ether	79016	Trichloroethylene
101144	4,4-Methylene bis (2-chloroaniline)	95954	2,4,5-Trichlorophenol
75092	Methylene chloride (Dichloromethane)	88062	2,4,6-Trichlorophenol
101688	Methylene diphenyl diisocyanate (MDI)	121448	Triethylamine
101779	4,4-Methylenedianiline	1582098	Trifluralin
		540841	2,2,4-Trimethylpentane
		108054	Vinyl acetate
		593602	Vinyl bromide



75014 Vinyl chloride  
75354 Vinylidene chloride  
(1,1-Dichloroethylene)  
1330207 Xylenes (isomers and mixtures)  
95476 o-Xylenes  
108383 m-Xylenes  
106423 p-Xylenes

Antimony compounds  
Arsenic compounds (inorganic  
including arsine)  
Beryllium compounds  
Cadmium compounds  
Chromium compounds  
Cobalt compounds  
Coke oven emissions  
Cyanide compounds  
Glycol ethers  
Lead compounds  
Manganese compounds  
Mercury compounds  
Mineral fibers  
Nickel compounds  
Polycyclic organic matter  
Radionuclides  
Selenium compounds