



Facts About Air Quality Permit Rules

The permit rules in Minn. R. ch. 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:
 1. Option A: A facility needs a permit solely because a certain New Source Performance Standard applies.
 2. 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.
 3. Option C: A facility has emissions only from boilers, internal combustion engines and volatile organic compound containing materials (or a combination of these emissions).
 4. Option D: A facility has **actual** emissions that are less than 50 percent of federal thresholds (see Table 1, next page) 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 modifications and minor and moderate amendments is more streamlined. Facilities will not have to wait as long to begin construction for these types of amendments.

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 (page 3).

What is 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 and a number of fact sheets. All are available on the MPCA’s Web site

at: www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-permits-and-forms.html.

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

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 have had a Title V permit issued under the current rule, you need to apply to have your permit reissued at least six months before it is due to expire. You need to send the MPCA an e-mail requesting the current facility-specific information from the MPCA’s permitting database. You can find instructions on how to do this on the MPCA’s Web site

at: <http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-forms/air-quality-forms-permit-application-notifications-compliance-and-miscellaneous.html?menuid=&missing=0&redirect=1>.

We have 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.

Table 1. Permitting thresholds (based on potential to emit)

Pollutant	State permit threshold	Federal permit threshold
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 _x)	100 tons per year	100 tons per year
Sulfur dioxide (SO ₂)	50 tons per year	100 tons per year
Fine particulate matter (PM ₁₀)	25 tons per year	100 tons per year
Carbon Dioxide Equivalent (CO ₂ e)	100,000 tons per year*	100,000 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

* As of July 1, 2011

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

I have a small business. How can the MPCA help me out?

The MPCA has two ways to help small businesses meet or exceed air quality regulations.

The first is the Small Business Environmental Assistance Program, which helps businesses with fewer than 100 employees understand and comply with environmental regulations and reduce their emissions. This program is free and business-specific information is kept confidential from regulatory programs at the MPCA.

The Small Business Environmental Assistance Program can be reached at 651-282-6143 or 800-657-3938 or www.pca.state.mn.us/sbeap.

The second option is the Small Business Ombudsman, who serves as a confidential 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 651-757-2121 or 800-985-4247 or www.pca.state.mn.us/sbo.

Need more information?

Copies of the rules, permit application forms, and fact sheets are available from the MPCA at 651-296-6300 or 800-657-3864.

The MPCA Web site is 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
Stationary Compression Ignition Internal Combustion Engines
VOC emissions from the polymer manufacturing industry
Flexible vinyl and urethane coating and printing
Synthetic fiber production facilities
Synthetic organic chemical manufacturing
Spark Ignition Internal Combustion Engines
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	106467	1,4-Dichlorobenzene(p)
60355	Acetamide	91941	3,3-Dichlorobenzidine
75058	Acetonitrile	111444	Dichoroethyl ether (Bis (2-chloroethyl) ether)
98862	Acetophenone	542756	1,3-Dichloropropene
53963	2-Acetylaminofluorene	62737	Dichlorvos
107028	Acrolein	111422	Diethanolamine
79061	Acrylamide	121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
79107	Acrylic acid	64675	Diethyl sulfate
107131	Acrylonitrile	119904	3,3-Dimethoxybenzidine
107051	Allyl chloride	60117	Dimethyl aminoazobenzene
92671	4-Aminobiphenyl	119937	3,3-Dimethyl benzidine
62533	Aniline	79447	Dimethyl carbamoyl chloride
90040	o-Anisidine	68122	Dimethyl formamide
1332214	Asbestos	57147	1,1 Dimethyl hydrazine
71432	Benzene	131113	Dimethyl phthalate
92875	Benzidine	77781	Dimethyl sulfate
98077	Benzotrichloride	534521	4,6-Dinitro-o-cresol, and salts
100447	Benzyl chloride	51285	2,4-Dinitrophenol
92524	Biphenyl	121142	2,4-Dinitrotoluene
117817	Bis (2-ethylhexyl) phthalate (DEHP)	123911	1,4-Dioxane (1,4-Diethyleneoxide)
542881	Bis (chloromethyl) ether	122667	1,2-Diphenylhydrazine
75252	Bromoform	106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106990	1,3-Butadiene	106887	1,2-Epoxybutane
156627	Calcium cyanamide	140885	Ethyl acrylate
133062	Captan	100414	Ethyl benzene
63252	Carbaryl	51796	Ethyl carbamate (Urethane)
75150	Carbon disulfide	75003	Ethyl chloride (Chloroethane)
56235	Carbon tetrachloride	106934	Ethylene dibromide (Dibromoethane)
463581	Carbonyl sulfide	107062	Ethylene dichloride (1,2-Dichloroethane)
120809	Catechol	107211	Ethylene glycol
133904	Chloramben	151564	Ethylene imine (Aziridine)
57749	Chlordane	75218	Ethylene oxide
778505	Chlorine	96457	Ethylene thiourea
79118	Chloroacetic acid	75343	Ethylidene dichloride (1,1-Dichloroethane)
532274	2-Chloroacetophenone	50000	Formaldehyde
108907	Chlorobenzene	76448	Heptachlor
510156	Chlorobenzilate	118741	Hexachlorobenzene
67663	Chloroform	87683	Hexachlorobutadiene
107302	Chloromethyl methyl ether	77474	Hexachlorocyclopentadiene
126998	Chloroprene	67721	Hexachoroethane
1319773	Cresols/Cresylic acid (isomers and mixtures)	822060	Hexamethylene-1,6-diisocyanate
95487	o-Cresol	680319	Mexamethylphosphoramidate
108394	m-Cresol	110543	Hexane
106445	p-Cresol	302012	Hydrazine
98828	Cumene	7647010	Hydrochloric acid
94757	2,4-D, salts and esters	7664393	Hydrogen fluoride (hydrofluoric acid)
3547044	DDE	123319	Hydroquinone
334883	Diazomethane	78591	Isophorone
132649	Dibenzofurans		
96128	1,2-Dibromo-3-chloropropane		
84742	Dibutylphthalate		

58899	Lindane (all isomers)	127184	Tetrachloroethylene (Perchloroethylene)
108316	Maleic anhydride	7550450	Titanium tetrachloride
67561	Methanol	108883	Toluene
72435	Methoxychlor	95807	2,4-Toluene diamine
74839	Methyl bromide (Bromomethane)	584849	2,4-Toluene diisocyanate
74873	Methyl chloride (Chloromethane)	95534	o-Toluidine
71556	Methyl chloroform (1,1,1-Trichloroethane)	8001352	Toxaphene (chlorinated camphene)
60344	Methyl hydrazine	120821	1,2,4-Trichlorobenzene
74884	Methyl iodide (Iodomethane)	79005	1,1,2-Trichloroethane
108101	Methyl isobutyl ketone (Hexone)	79016	Trichloroethylene
624839	Methyl isocyanate	95954	2,4,5-Trichlorophenol
80626	Methyl methacrylate	88062	2,4,6-Trichlorophenol
1634044	Methyl tert butyl ether	121448	Triethylamine
101144	4,4-Methylene bis (2-chloraniline)	1582098	Trifluralin
75092	Methylene chloride (Dichloromethane)	540841	2,2,4-Trimethylpentane
101688	Methylene diphenyl diisocyanate (MDI)	108054	Vinyl acetate
101779	4,4-Methylenedianiline	593602	Vinyl bromide
91203	Naphthalene	75014	Vinyl chloride
98953	Nitrobenzene	75354	Vinylidene chloride (1,1-Dichloroethylene)
92933	4-Nitrobiphenyl	1330207	Xylenes (isomers and mixtures)
100027	4-Nitrophenol	95476	o-Xylenes
79469	2-Nitropropane	108383	m-Xylenes
684935	N-Nitroso-N-methylurea	106423	p-Xylenes
62759	N-Nitrosodimethylamine		
59892	N-Nitrosomorpholine		Antimony compounds
56382	Parathion		Arsenic compounds (inorganic including arsine)
82688	Pentachloronitrobenzene (Quintobenzene)		Beryllium compounds
87865	Pentachlorophenol		Cadmium compounds
108952	Phenol		Chromium compounds
106503	p-Phenylenediamine		Cobalt compounds
75445	Phosgene		Coke oven emissions
7803512	Phosphine		Cyanide compounds
7723140	Phosphorus		Glycol ethers
85449	Phthalic anhydride		Lead compounds
1336363	Polychlorinated biphenyls (aroclor)		Manganese compounds
1120714	1,3-Propane sultone		Mercury compounds
57578	beta-Propiolactone		Mineral fibers
123386	Propionaldehyde		Nickel compounds
114261	Propoxur (Baygon)		Polycyclic organic matter
78875	Propylene dichloride (1,2-Dichloropropane)		Radionuclides
75569	Propylene oxide		Selenium compounds
75558	1,2-Propylenimine (2-Methyl aziridine)		
91225	Quinoline		
106514	Quinone		
100425	Styrene		
96093	Styrene oxide		
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin		
79345	1,1,2,2-Tetrachloroene		