



***Facts about* Air Quality Rules and Permitting for the Grain and Feed Industry**

In the course of normal operation, grain elevators and feed mills emit dust or particulate matter into the air. Some of this dust may be very fine, and is referred to as PM₁₀. Even though this is primarily grain dust, in many cases these facilities still require an air emissions permit.

What if I was told in the past that I don't need a permit?

In the past, many grain elevators and even more feed mills were exempt from permitting based on their actual grain throughput, or handle. That exemption no longer exists in the MPCA permit rule. You should re-examine whether you need a permit, based on the current permit rules.

How do I know if I need a permit now?

The requirement to obtain a permit is based on "potential to emit," or PTE. Under federal regulations, PTE is the maximum amount of pollutants your facility could emit if you operated all of your equipment at maximum capacity, 24 hours per day, with the control equipment turned off.

In the past, this was how PTE was calculated for all industries in all states, based on the federal definition of PTE. However, in November 1995, the U.S. Environmental Protection Agency (EPA) issued a guidance memo outlining a different way to calculate PTE for country elevators only.

Country elevators are defined in the memo as those elevators that receive more than 50 percent of their grain from farmers in the immediate vicinity during the harvest season. Terminal elevators are those that receive grain primarily from other elevators, or all elevators that don't meet the definition of country elevator.

The EPA provides an alternative PTE calculation for country grain elevators because it recognizes that country elevators operate seasonally and that their operation is constrained to a limited geographic area with a finite amount of grain to be harvested.

To calculate PTE for country elevators, you first determine the maximum amount of grain you have handled in any of the past five years. You then multiply that amount by 1.2 (to account for the possibility of record harvests or other reasons for handling more grain than in the past years). You then multiply that amount by the emission factor for each process.

To calculate PTE for terminal elevators or feed mills, you multiply the maximum amount of grain you could possibly process (assuming an unlimited supply is available) by the emission factor for each process.

Grain elevator and feed mill emission factors are available in the most current version of AP-42, an EPA document containing emission factors for a variety of operations and industries. Calculation Form EC-16 contains a summary of the emission factors, and is

available from the Document Coordinator. The phone number is at the end of this document.

If you've done stack testing at your facility and had the results verified by MPCA staff, you should instead use that data for PTE. Whichever data you use, if your PTE is greater than or equal to 25 tons of PM₁₀ per year, you are required to get a permit. For more help on PTE, contact the Permit Technical Advisor or the Small Business Assistance Program. Both numbers are listed at the end of this fact sheet.

Once you discover whether or not you need a permit, you have finished with PTE calculations for this exercise. If you discover that you **do** need a permit (as some grain elevators and feed mills will), the next step is to determine which type of permit is best for your facility.

What kinds of permits are available?

Grain elevators and feed mills have several permit options. In order of increasing complexity, they are:

- Registration permit Option D
- Individual state permit
- Individual Part 70 permit.

Each type is briefly described below. Remember, you only need **one** of the following types, not all of them.

Registration Permit Option D:

It is anticipated that most country grain elevators and feed mills that need permits will qualify for Option D permits. To qualify for an Option D permit, your actual PM₁₀ emissions (based on how much grain you actually handle, and assuming your control equipment is running properly and meets the requirements of the rules) must be less than 50 tons per year.

The Option D permit is a one-page permit says you that you must comply with all the applicable rules. However, you are responsible for knowing what the applicable rules are.

If you use pollution control equipment (baghouse or cyclone) you must operate it in accordance with what's listed in Minn. R. 7011.0060 - 7011.0080. The Option D permit does not allow you to account for any dust suppression you achieve by applying an oil spray. That is because oil spray is not listed in Minn. R. 7011.0060 - 7011.0080. You're only allowed to count control equipment that is listed in the rule.

To apply for an Option D permit, you need a Registration Permit Application Package.

Once you have the Option D permit, you just continue to operate on a normal basis. In most cases, you can even add or change out equipment without getting a new permit. However, every month you must recalculate your actual emissions to be sure that you're still below the Option D threshold of 50 tons of PM₁₀ per year. Consider getting a copy of *the Registration Permit Handbook*. It's available from the Document Coordinator.

Individual State and Part 70 permits:

These types of permits are individually written specifically for your facility. If your actual emissions of PM₁₀ (or any other pollutant) are 100 tons per year or more, you need to get a Part 70 permit. Part 70 is the section of the federal regulations that describes the permitting requirements of the Clean Air Act. A Part 70 permit is a federal permit, but it is issued by the state.

If your actual emissions are less than 100 tons per year, but you don't care to get the Option D permit, you can choose to get an individual state permit instead. Both the state and the Part 70 permits require you to fill out the more complex standard application form, which you may have seen or received in the mail.

It will probably take longer to fill out the application for one of these types of permits, and it will take longer for the permit engineer to write the permit. (The Option D permit is pre-written and automatically generated.)

Once the permit is written, it will have to undergo a 30-day public notice period (state and Part 70 permits), and an additional 45-day EPA review period (Part 70 permits). The 45-day EPA review must follow the 30-day public notice period, for a minimum of 75 days between when a Part 70 permit is written and when it can be issued.

Once you receive either an individual state or Part 70 permit, you may need to undergo permitting again when you make changes to your facility.

What is “NSPS”?

NSPS is “New Source Performance Standard.” These are federal standards of performance that apply to various industries and equipment.

The NSPS most likely to apply to a grain elevator is Subpart DD. This applies to some large grain elevators and mills. If you have permanent storage space for more than one million bushels of grain and any part of your facility has been built, modified, or rebuilt since August 3, 1978, some or all of the requirements of this standard may apply. There is a separate fact sheet, Facts about Standards for Grain Elevators, available from

the Document Coordinator, which you may find helpful.

Other NSPS also may apply if you have boilers or fuel storage tanks on site. A good reference for determining if your boilers or storage tanks might be subject to an NSPS is the Registration Permit Handbook. Or, you can use Form GI-09D of the permit application. Both of these are available from the Document Coordinator.

Are there any other rules I should know about?

Yes. Whether or not you have or need a permit, you are probably subject to the requirements of Minn. R. 7011.1005 - 7011.1015, Standards of Performance for Dry Bulk Agricultural Commodity Facilities. This rule contains opacity and control standards that have to be met by some facilities, and requirements for when control equipment must be used.

The requirements for when and how much control is required can be confusing, and have recently been changed. Table 1 should help clarify those requirements.

To use Table 1, find the description in the first column that best fits your facility. The rule requirements are based on facility location and annual throughput, and on the date the facility was constructed or last modified, and are listed to the right of the box that describes your facility. *Fact sheet continues with Table 1 on next page.*

Who Should I Call if I Have More Questions?

For further assistance, contact any of the following:

Permit Technical Advisor:	(651) 282-5844 or (800) 646-6247
Small Business Assistance Program:	(651) 282-6143 or (800) 657-3938
Document Coordinator:	(651) 282-5843
TTY:	(651) 282-5332 or (800) 657-3864



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Table 1 -- Control Requirements in Minnesota Rules

Description of Facility Location, Throughput, Date Constructed or Modified	Control Requirements under Minnesota Rules
<ul style="list-style-type: none"> • Located within the 7-county metropolitan area (Ramsey, Anoka, Hennepin, Dakota, Scott, Carver, or Washington County) <p>(throughput and construction/modification dates are irrelevant in these locations)</p>	<p>Some type of control equipment is required on grain receiving areas, grain loadout areas, and handling operations. A “handling operation” is defined as “the use of bucket elevators, scale hoppers, conveyors, trippers, and spouts for the distribution and weighing of commodities within a commodity facility.” The control equipment must be at least 80% efficient. Emissions from the control equipment must not exceed 10% opacity</p>
OR	
<ul style="list-style-type: none"> • Located outside the 7-county metropolitan area, and • Located in a city with a population of 7,500 or more <p>(throughput and construction/modification dates are irrelevant in these locations)</p>	
OR	
<ul style="list-style-type: none"> • Located outside the 7-county metropolitan area, and • Located in a city with a population less than 7,500, and • Annual throughput is 180,000 tons or more, and 	
OR	
<ul style="list-style-type: none"> • Located outside the 7-county metropolitan area, and • Located in a city with a population less than 7,500, and • Annual throughput is 120,000 - 180,000, and • Facility has been built or modified since January 1, 1984 	
<ul style="list-style-type: none"> • Located outside the 7-county metropolitan area, and • Located in a city with a population less than 7,500, and • Annual throughput is greater than or equal to 120,000 tons, but less than 180,000 tons, and • Facility has not been built or modified since January 1, 1984 	<p>Control equipment is not required by the rule. However, if some type of capture system is used, the dust captured must be routed to control equipment that is at least 80% efficient.</p>
OR	
<ul style="list-style-type: none"> • Located outside the 7-county metropolitan area, and • Located in a city with a population less than 7,500, and • Annual throughput is less than 120,000 tons <p>(construction/modification dates are irrelevant)</p>	