

Background Information on Implementing the Greenhouse Gas Tailoring Rule in Minnesota: Exempt Rulemaking

The purposes of this document are:

- To provide information about new regulations governing greenhouse gases (GHGs) in air emission permits;
- To document the reasons for the Minnesota Pollution Control Agency (MPCA) to revise its air permitting rules under the exempt rulemaking process to include GHGs; and
- To explain what parts of the rules will be modified.

What is the Regulatory Background?

In the past, GHGs were not regulated pollutants under the federal Clean Air Act. That has changed. Starting in 2007, a series of actions led to the federal regulation of air emission facilities for GHGs. As the result of a lawsuit, the United States Supreme Court found that GHGs, including Carbon Dioxide (CO₂), are air pollutants covered by the Clean Air Act. The United States Environmental Protection Agency (U.S. EPA) eventually found that GHGs endanger public health and welfare. Since that time, U.S. EPA has proceeded to develop various rules to regulate the emission of GHGs. The first of these regulations takes effect on January 2, 2011. This is the date on which GHGs become “subject to regulation”. Once GHGs are a regulated pollutant, they must be included in permits for stationary sources under the Clean Air Act.

Under the Clean Air Act, stationary sources must obtain federal permits if their potential to emit certain pollutants is in excess of established emission thresholds. The existing rules require federal permits if potential emissions exceed 100 or 250 tons per year (tpy). U.S. EPA realized that these emission thresholds would require thousands of existing, unregulated stationary sources to obtain air emission permits as major sources solely as a result of GHGs becoming a regulated pollutant. U.S. EPA acknowledged that regulating GHGs at 100 or 250 tpy is not practical or desirable. On May 13, 2010, U.S. EPA published final rules establishing an alternative GHG emission threshold of 100,000 tpy for the operating and construction permit programs (Part 70 and New Source Review (NSR)/Prevention of Significant Deterioration (PSD), respectively). The rule “tailors” the existing emissions thresholds for GHG emissions.

What does the final EPA rule include?

The new federal rule gives a definition of GHGs. For permitting purposes, “GHGs” is an aggregate group of 6 gases, consisting of CO₂, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Their global warming potential is normalized to carbon dioxide equivalent (CO₂e). CO₂e means the amount of emissions is multiplied by a factor to account for the different influence of each gas on the atmosphere compared to CO₂. The rule defines CO₂e and requires that GHG be measured as CO₂e.

The permit threshold for both the operating and construction permit programs (Part 70 and PSD) is a potential-to-emit (PTE) of 100,000 tpy CO₂e. For PSD modifications, a net emissions increase of 75,000 CO₂e meets the significance threshold at which additional analyses must be done.

When does GHG permitting begin?

GHGs must be addressed in air emission permits issued on or after January 2, 2011. Starting on January 2, 2011, new or modified sources that were already subject to Part 70 or PSD under the previous rules must address GHGs in their permits if their GHG emissions meet or exceed the new thresholds. Starting July 1, 2011, new, modified and existing facilities are subject to the new thresholds.

Note that U.S. EPA also promulgated a GHG emissions reporting rule with a different emissions threshold. Under the reporting rule, facilities must report their GHG emissions if their actual emissions are 25,000 tpy CO₂e or more. Therefore, some facilities will report but will not need permit changes provided their PTE for GHGs is less than 100,000 tpy CO₂e.

Does Minnesota have to change its rule to implement the new GHG permit requirements?

Minnesota is a delegated state for the PSD program. The new federal PSD permit threshold, therefore, is effective here immediately upon GHGs becoming “subject to regulation” on January 2, 2011. No changes to state rules are needed to apply the federal GHG permit threshold to Minnesota’s PSD permits. Permit applications that are in-process on January 2, 2011, may have to be amended. Facilities may choose to take enforceable limitations to be a minor source for GHGs or may make a modification to remain below the significance threshold.

The situation for Minnesota’s Part 70 operating permit program is different. Minnesota operates an approved state program for operating permits. To determine the applicability of the Part 70 program, Minnesota Rules refer to and mirror the definition of a major source in the Clean Air Act. Additionally, the rule sets the permit threshold at 100 tpy. The current rule says:

7007.0200 SOURCES REQUIRED OR ALLOWED TO OBTAIN A PART 70 PERMIT.

Subp 2B A major stationary source of air pollutants, as defined in section 302 of the act (General Provisions; Definitions), that directly emits or has the potential to emit, 100 tons per year or more of any air pollutant (including any major source of fugitive emissions of any such pollutant, as determined by rule by the administrator).

As a result, the MPCA must amend its permitting rules to avoid requiring small sources to obtain operating permits. A fairly small furnace or boiler – such as in a 3,500 square foot house, for example – could exceed this threshold for GHGs. Many buildings that did not need a permit before would need one if the MPCA does not take action to amend its permitting rules.

The MPCA will revise the applicability in Minn. R. ch 7007.0200 to establish a 100,000 tpy potential-to-emit threshold for GHGs. Additionally; various rule requirements for state-only permits need to be modified to ensure that facilities remain minor sources. The chapters of Minnesota’s rules that will be amended are Minn. Rules chapters 7005 (Definitions and Abbreviations) and 7007 (Air Permitting). The sections to be revised are as follows.

- 7005.0100 Pollutant and emission factor definitions
- 7007.0100 Definitions
- 7007.0150 Permit Required
- 7007.0200, subp. 2 Major Sources Requires or Allowed to Obtain a Part 70 Permit

- 7007.0400 Permit Reissuance Applications After Transition; New Source and Permit Amendment Applications; Applications for Sources Newly Subject to a Part 70 or State Permit Requirement
- 7007.0500 Content of Permit Application
- 7007.1105 and 1107 Eligibility for and Application and Permit Content Related to Environmental Management System Provisions in State Permits
- 7007.1110, 1125 and 1130 Registration Permit General Requirements, Option C & D eligibility, compliance, calculation, thresholds
- 7007.1141 and 1146 Capped Permits Emission Thresholds and Compliance Requirements
- 7007.1300 Insignificant Activities List
- 7007.1450 Minor and Moderate Permit Amendments

What is the rule making process?

The MPCA will use the exempt rulemaking process under Minn. Stat. §14.388 to implement the Part 70 GHG permit threshold and make related revisions. The statute reads as follows:

14.388 GOOD CAUSE EXEMPTION.

Subdivision 1. Requirements. If an agency for good cause finds that the rulemaking provisions of this chapter are unnecessary, impracticable, or contrary to the public interest when adopting, amending, or repealing a rule to: ...

(2) comply with a court order or a requirement in federal law in a manner that does not allow for compliance with sections 14.14 to 14.28;

The statute allows an agency to use the exempt process if the agency finds that the usual rulemaking provisions are unnecessary, impracticable or contrary to the public interest when amending a rule to comply with a requirement in federal law in a manner that does not allow for compliance with the usual rulemaking procedures. In this case, the MPCA is finding that the usual rulemaking requirements are impracticable and contrary to the public interest because federal law requires the inclusion of GHGs as a regulated pollutant for permitting purposes on January 2, 2011. Adopting the 100,000 tpy permitting threshold by January 2, 2011, will avoid drawing sources that exceed the existing state threshold of 100 tpy into the permitting program, which would be impracticable and contrary to the public interest. The exempt rulemaking process will allow the MPCA to complete the rule revisions prior to January 2, 2011, the effective date of the federal permit rule

Rules passed using this expedited process are effective for a maximum of two years. Therefore, the MPCA will begin a traditional rulemaking process starting in early 2011 to make the temporary rule changes permanent. State rule changes typically take approximately 18-24 months to process. Most likely, these permanent rules would be completed in mid- to late 2012. An approval process for the State Implementation Plan including the revised rules will follow as quickly as resources and time permit.

In what way will Minnesota's rules be revised?

7005.0100 DEFINITIONS. Because GHGs are a new pollutant, terminology specific to them must be added to the MPCA's definitions. A new definition of Greenhouse Gas (GHG) is added. The MPCA will mirror EPA's definition of GHG as an aggregate of six gases.

In addition, Subp. 10a, “Emission factor,” will be revised to include additional acceptable calculation references for GHG emissions as some sources are not covered by those currently listed.

7007.0100 DEFINITIONS. GHGs will be added to the definition of regulated air pollutant, which is a term used in the MPCA’s PSD permit program and application content requirements. The MPCA will also adopt EPA’s definition in the Tailoring Rule of “Subject to Regulation.”

7007.0150 PERMIT REQUIRED. New subparts will be added to explain the process that an owner or operator must follow if there is a pending modification that was approved prior to January 2, 2011. The intent is to ensure that no pending modifications become major sources inadvertently by application of the new GHG threshold.

7007.0200 SOURCES REQUIRED OR ALLOWED TO OBTAIN A PART 70 PERMIT. This part currently defines the applicability of the Part 70 program in Minnesota according to the definition of a major source in the Clean Air Act and sets the permit threshold at 100 tons per year. The new federal Part 70 threshold for GHGs will be added as 100,000 tpy CO₂e.

7007.0400 PERMIT REISSUANCE APPLICATIONS AFTER TRANSITION; NEW SOURCE AND PERMIT AMENDMENT APPLICATIONS; APPLICATIONS FOR SOURCES NEWLY SUBJECT TO A PART 70 OR STATE PERMIT REQUIREMENT. This rulemaking adds language to specify the process an owner or operator should follow if a regulatory change makes a facility newly subject to Part 70. The existing language is modified to clarify that it applies to sources making an actual change or modification.

7007.0500 CONTENT OF PERMIT APPLICATION. GHGs are added to the list of pollutants for which information must be submitted.

7007.1105 ELIGIBILITY FOR ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) PROVISIONS IN STATE PERMITS. GHGs are added to the list of pollutants for which permit limits must be in place to be eligible to use these provisions.

7007.1107 APPLICATION AND PERMIT CONTENT RELATED TO INCLUSION OF EMS PROVISIONS IN STATE PERMITS. A GHG threshold of 25,000 tpy CO₂e is added to the list of pollutant levels to be eligible for reduced calculations.

7007.1110 REGISTRATION PERMIT GENERAL REQUIREMENTS. A new subpart will be added to address when a facility becomes ineligible for its current registration permit category because of a new regulatory requirement for GHGs. The subpart includes timelines for notifications and revised permit applications.

7007.1125 REGISTRATION PERMIT OPTION C. Subpart 1, Eligibility will be modified to prohibit the generation or use at the stationary source of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride or nitrous oxide other than from combustion. Subpart 3, Compliance Requirements, will be modified to include recordkeeping for GHGs and the date that new recordkeeping must begin.

7007.1130 REGISTRATION PERMIT OPTION D. Subpart 3, Compliance Requirements, will be modified to include GHGs in the 12-month rolling sum calculations and the date that new recordkeeping must begin. In addition, new parts will be added to provide calculation methods for GHGs.

- Facilities using a mass balance method for materials which contain hydrofluorocarbons, perfluorocarbons, nitrous oxide or sulfur hexafluoride; and

- Facilities with carbon dioxide, nitrous oxide or methane emissions resulting from a chemical process such as fermentation, wastewater treatment or decomposition.

For reduced recordkeeping, a GHG emissions threshold of 25,000 tpy CO₂e will be added to Table 3A in subpart 3a. A GHG emissions threshold of 50,000 tpy CO₂e will be added to Table 3 in subpart 5. These thresholds use the same proportion of the federal permit threshold as the other pollutants.

Subpart 4, Calculation of actual emissions, will modify subp. 4. D. to include GHGs and explain that process for GHGs is to calculate the individual constituents, convert to CO₂e and sum the total CO₂e. The calculation method is the same as that promulgated in the federal rule.

7007.1141 CAPPED PERMIT EMISSION THRESHOLDS. A GHG emissions threshold of 90,000 tpy CO₂e and 85,000 tpy CO₂e will be added to Subparts 1 and 2, respectively.

7007.1146. CAPPED PERMIT COMPLIANCE REQUIREMENTS. GHGs will be added to record keeping requirements in Subpart 2, along with the date to begin the new recordkeeping.

7007.1300 INSIGNIFICANT ACTIVITIES LIST. In Subpart 2.A, 2.G, 3.A and 3.B, the size/capacity of units that qualify under this subpart has been reduced. The new thresholds will ensure that GHG emissions from these units will continue to be “insignificant” and unlikely to cause a facility to exceed the major source thresholds. The capacities were selected to be proportionate to the current levels relative to the Part 70 permit threshold.

A GHG emissions threshold of 1,000 tpy CO₂e has been subpart 3 for activities required to be listed in a permit application. Additionally, for Part 70 permits, GHG emissions thresholds of 10,000 tpy CO₂e PTE or 1,000 tpy CO₂e actual emissions have been added to activities required to be listed in a permit application.

7007.1450 MINOR AND MODERATE PERMIT AMENDMENTS. The language is modified to allow the minor amendment process to be used to incorporate former insignificant activities that no longer qualify as insignificant into permits.