

CHAPTER 7019
MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY DIVISION
EMISSION INVENTORY REQUIREMENTS

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7019.0100 INCORPORATION OF NOTIFICATION AND RECORDKEEPING REQUIREMENTS BY REFERENCE.

Subpart 1. **New Source Performance Standards.** Code of Federal Regulations, title 40, part 60.7, as amended, entitled "Notification and Recordkeeping," is adopted and incorporated by reference.

Subp. 2. **National Emission Standards for Hazardous Air Pollutants.** The following are adopted and incorporated by reference:

A. Code of Federal Regulations, title 40, part 61.09, as amended, entitled "Notification of Startup."

B. Code of Federal Regulations, title 40, part 61.10, as amended, entitled "Source Reporting and Waiver Request."

Subp. 3. **Submission to commissioner.** All requests, reports, applications, submittals, and other communications to the administrator pursuant to subparts 1 and 2 must be submitted to the commissioner.

Statutory Authority: *MS s 116.07*

History: *18 SR 580*

7019.1000 SHUTDOWNS AND BREAKDOWNS.

Subpart 1. **Shutdown.** The owner or operator of an emission facility shall notify the commissioner at least 24 hours in advance of shutdown of any control equipment and, if the shutdown would cause an increase in the emission of air contaminants, of a shutdown of any process equipment. At the time of notification, the owner or operator shall also notify the commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the commissioner when the shutdown is over.

Subp. 2. **Breakdown.** The owner or operator of an emission facility shall notify the commissioner immediately of a breakdown of more than one hour duration of any control equipment and, if the breakdown causes an increase in the emission of air contaminants, of a breakdown of any process equipment. At the time of notification or as soon thereafter as possible, the owner or operator shall also notify the commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the commissioner when the breakdown is over.

Subp. 3. **Operation changes.** In any shutdown or breakdown covered by subpart 1 or 2, the owner or operator shall immediately take all practical steps to modify operations to reduce the emission of air contaminants. The commissioner may require feasible and practical modifications in the operation to reduce emissions of air contaminants. No affected facility which has an unreasonable breakdown frequency of control equipment shall be permitted to operate. Nothing in this part shall permit the operation of an affected facility which may cause an immediate public health hazard.

Subp. 4. **Monitoring equipment.** The owner or operator of a continuous monitoring system or monitoring device shall notify the commissioner of any breakdown or malfunction of such system or device.

Statutory Authority: *MS s 116.07 subd 4*

History: *L 1987 c 186 s 15; 18 SR 614*

7019.2000 REPORTS.

Subpart 1. **Excess emissions.** Any owner or operator of an affected facility who is required to install a continuous monitoring system shall submit a written report of excess emissions for every calendar quarter.

The report shall be submitted to the commissioner of the division of air quality of the agency.

The report shall be submitted in accordance with the following requirements:

A. The report shall be postmarked by the 30th day following the end of each calendar quarter; and

B. The report shall contain the following information:

(1) the magnitude of excess emissions, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions;

(2) specific identification of each period of excess emissions that occurred during start-ups, shutdowns, and malfunctions of the affected facility, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted;

(3) the date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

(4) when no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

Subp. 2. **Other data.** The owner or operator of any affected facility shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by any regulation and shall keep that file in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

Subp. 3. **Breakdowns.** The owner or operator of an affected facility shall maintain records of the occurrence and duration of any start-up, shutdown, breakdown, or malfunction in operation of the facility or any air pollution control equipment. The owner or operator shall maintain records of any periods of time in which a continuous monitoring system or monitoring device is inoperative. These records shall be retained for at least two years following the date of such shutdown, start-up, breakdown, malfunction, or inoperation. These records shall be submitted to the agency at such times as the commissioner may require.

Subp. 4. [Repealed, 17 SR 440]

Statutory Authority: *MS s 116.07*

History: *L 1987 c 186 s 15; 17 SR 440; 18 SR 614*

7019.3000 EMISSION INVENTORY.

Subpart 1. **Owners or operators.** All owners or operators of affected facilities, as defined in part 7002.0015, subpart 2, and all owners and operators of stationary sources with potential emissions of more than 25 tons per year of a regulated pollutant, as defined in part 7002.0015, subpart 4, shall submit an annual emission inventory report to the agency, in a format specified by the commissioner, relating to carbon monoxide and all regulated pollutants as defined in part 7002.0015, subpart 4. The report shall be submitted on or before April 1 of the year following the year being reported. A person who signs the report shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision by qualified personnel. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that the data provided in this document will be used by the MPCA to calculate a fee, which the facility will be required to pay under Minnesota Rules, part 7002.0025, based on the tons of pollution emitted by the facility."

Subp. 2. Owner or operator error in reporting data. If an owner or operator discovers an error in the data after having submitted it to the agency, the owner or operator shall submit corrected data, with a written explanation of the mistake and why it occurred. If the commissioner agrees that the correction is appropriate, the commissioner shall correct the data in the inventory. However, for purposes of assessing the emission fee under part 7002.0025, the commissioner shall not recognize any correction submitted by an owner or operator which would result in a reduction of tons emitted if the correction is submitted after November 30 of the year the inventory is due.

Statutory Authority: *MS s 116.07*

History: *17 SR 440; 18 SR 614; 18 SR 1059*

7019.3010 CALCULATION OF ACTUAL EMISSIONS FOR EMISSION INVENTORY.

Subpart 1. Method.

A. Except as provided in item B, all calculations of actual emissions required under part 7019.3000 shall be based on the operating data supplied in the emission inventory, multiplied by an emission factor. The emission factor used in this calculation shall be an EPA emission factor or, where no EPA emission factor is available, an emission factor generated by the agency. An emission factor generated by the agency shall be calculated using engineering methods consistent with the methods used by the EPA to calculate EPA emission factors. Control equipment efficiency shall be based on the average of the range of EPA efficiency factors or shall be based on the efficiency verified by a performance test conducted according to parts 7017.2001 to 7017.2060, provided the performance test took place in the year for which emissions are being calculated.

B. The alternative method described in subpart 2 shall be used by the affected facility to calculate actual emissions in its emissions inventory instead of the method described in item A if data as described in subpart 2 is available for the facility. The alternative methods described in subparts 3, 4, and 5 may be used by the facility without advance notification to the division manager. The method described in subpart 6 may be used, provided that the proposal is submitted to the division manager by October 1 of the year for which the emissions are being calculated, beginning in 1993. The commissioner shall reject data submitted using the methods described in subparts 2 to 5 if the conditions set forth for the method are not fully met.

Subp. 2. Continuous emission monitor (CEM) data. If an affected facility has collected emissions data through use of a continuous emission monitor (CEM), the facility shall report that data to the agency in its emission inventory. The requirements in items A to C must be met.

A. The CEM operation must have been in compliance with all of the requirements of parts 7017.1000, 7019.1000, and 7019.2000; any other applicable state or federal laws pertaining to CEM operation; and all applicable air emission permit conditions.

B. The total operating time of the applicable emission unit and the total operating time of the CEM must be included in the report.

C. An explanation of how the emissions were calculated based on the CEM data must be included in the report. For CEM downtime, this calculation must apply EPA emission factors, stack test data as specified in subpart 3, a permit emission limit, or the method of reporting CEM downtime specified by the United States Environmental Protection Agency in rules adopted under section 412 of the federal Clean Air Act Amendments of 1990, Public Law Number 101-549, Statutes at Large, volume 104. This method may be used by any facility with a CEM, regardless of whether federal regulations require them to use it.

Subp. 3. Stack test data. Emission factors from stack tests may be used for the calculation of emissions, provided that the following conditions are met:

A. all the requirements of parts 7017.2001 to 7017.2060, all other applicable state and federal laws, and all applicable air emission permit conditions relating to stack testing have been complied with; and

B. the test was performed during the calendar year for which the emissions are being calculated.

Subp. 4. **Volatile organic compound (VOC) material balance.** A material balance method may be used to calculate VOC emissions. A person using material balance to calculate VOC emissions shall determine the total VOC emissions (E) as follows:

$$E = (a - b - c) * (1 - d)$$

where:

a = the amount of VOC entering the process. A signed statement from the supplier or the material safety data sheet must be submitted stating the maximum amount of VOC in any material that was used in the process.

b = the amount of VOC incorporated permanently into the product. This includes VOC's chemically transformed in production. It does not include latent VOC remaining in the product that will at some time be released to the atmosphere. An explanation of this calculation must also be submitted.

c = the amount of VOC, if any, leaving the process as waste, or otherwise not incorporated into the product and not emitted to the air.

d = the overall efficiency, or the product of capture efficiency and control efficiency, of any device used to capture and/or control VOC emissions, expressed as a decimal fraction of 1.00. This overall efficiency shall be based on the average of the range of EPA efficiency factors, or shall be based on the overall efficiency verified by a performance test conducted according to parts 7017.2001 to 7017.2060, provided that the performance test took place in the year for which emissions are being calculated.

Subp. 5. **SO₂ material balance.** A person may determine sulfur dioxide emissions by measuring the sulfur content of the fuel and assuming that all of the sulfur in the fuel is oxidized to sulfur dioxide. The sulfur content of each batch of fuel received must be measured by an independent laboratory using American Society of Testing and Materials (ASTM) methods. The sulfur dioxide emissions shall be determined by using the following equation: $SO_2 = \%S/100 \times F/2000 \times 2$.

where:

SO₂ = Sulfur dioxide emissions from a batch of fuel.

%S = Weight percent sulfur in the fuel being burned.

F = Amount of fuel burned by weight in pounds.

2000 = Pounds per ton.

2 or 64/32 = Pounds of sulfur dioxide per pound of sulfur in one pound-mole.

The total sulfur dioxide emissions for the year shall be the sum total of the individual batch totals.

Subp. 6. **Facility proposal.** If none of the alternative methods in subparts 2 to 5 would give an accurate representation of the facility's actual emissions, or none of the methods listed is technically or economically feasible, the affected facility may propose an alternative method for calculating the emissions. The proposal shall include:

A. an explanation of why none of the alternative methods in subparts 2 to 5 give an accurate representation of emissions, or why the methods are not technically or economically feasible;

B. a detailed description of the proposed method; and

C. a comparison of the accuracy of the proposed method with the alternatives in subparts 2 to 5.

The proposal shall be submitted to the commissioner by October 1 of the year for which the emissions are being calculated, beginning in 1993. The commissioner shall accept the affected facility's proposal if the commissioner finds that the proposal is equally or more representative of the facility's emissions than alternatives in subparts 2 to 5, excluding the technically or economically infeasible alternatives. If the commissioner rejects the proposal, the commissioner shall do so by February 1 of the year the inventory is due.

Statutory Authority: *MS s 116.07*

History: *17 SR 440; 18 SR 614; 18 SR 1412*