

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, section 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, section 63.9, as amended, entitled "Notification Requirements."

B. Code of Federal Regulations, title 40, section 63.10, as amended, entitled "Recordkeeping and Reporting Requirements."

C. Code of Federal Regulations, title 40, section 61.09, as amended, entitled "Notification of Startup."

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

[For text of subp 3, see M.R.]

Statutory Authority: *MS s 116.07*

History: *20 SR 2254(NO. 42)*

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 a shutdown of any control equipment or process equipment if the shutdown would cause an increase in the emissions of any regulated air pollutant. 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 or process equipment if the breakdown would cause an increase in the emissions of any regulated air pollutant. 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.

[For text of subps 3 and 4, see M.R.]

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3000 EMISSION INVENTORY.

Subpart 1. **Emission inventory required.**

A. All owners or operators of emission reporting facilities, as defined in part 7002.0015, subpart 3a, shall submit an annual emission inventory report to the agency, in a

format specified by the commissioner, relating to carbon monoxide, particulate matter, and all chargeable pollutants as defined in part 7002.0015, subpart 2a. The report shall be submitted on or before April 1 of the year following the year being reported. The responsible official, as defined in part 7007.0100, subpart 21, must sign the report and 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 7002.0065, based on the tons of pollution emitted by the facility."

B. (1) All owners or operators of facilities issued option B registration permits under part 7007.1120 shall submit either an emission inventory using methods described under subitem (3) and parts 7019.3020 to 7019.3100 or the certification and VOC-containing material report in subitem (2). The report shall be submitted on or before the April 1 following the year being reported.

(2) All owners or operators that choose to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (2), shall submit a report and certification to the agency. The responsible official, as defined in part 7007.0100, subpart 2, must sign the report and shall make the following certification:

"I certify under penalty of law that the facility described in registration permit number is eligible for the option B registration permit that it was issued and holds and that the facility purchased or used (as stated in the permit application) . . . gallons of VOC-containing materials in the 12-month reporting period. I further certify that the eligibility of the facility and the quantity of material reported herein were determined under my direction or supervision by qualified personnel. The information used to determine eligibility and the quantity of material reported herefor for the registration permit is, to the best of my knowledge and belief, true and accurate. I understand that the information provided in this certification will be used by the MPCA to assess a fee under Minnesota Rules, part 7002.0025, subpart 1, item C, which the facility will be required to pay under Minnesota Rules, part 7002.0065."

(3) All owners and operators that choose to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (1), shall submit an emission inventory report to the agency, in a format specified by the commissioner, relating to emissions from the use of VOC-containing materials using methods described in part 7019.3030, item B, and the certification in subitem (2). The certification and emission inventory shall be signed by the responsible official, as defined in part 7007.0100, subpart 2.

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 the February 1 following the year in which the inventory is due or 45 days after the annual emissions inventory mailing date, whichever is later.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3010 [Repealed, 21 SR 165]

7019.3020 CALCULATION OF ACTUAL EMISSIONS FOR EMISSION INVENTORY.

A. Emissions from all emissions units shall be reported in the annual emissions inventory report in a format specified by the commissioner. Emissions from insignificant activities listed in part 7007.1300, subpart 2, shall not be reported. Emissions from insignifi-

cant activities listed in part 7007.1300, subparts 3 and 4, shall be reported if the commissioner or owner or operator has determined that emissions from those activities are not insignificant for purposes of permitting under parts 7007.0100 to 7007.1850. Notwithstanding the previous sentence, the commissioner may request an inventory of fugitive emissions from roads and parking lots, defined as insignificant under part 7007.1300, subpart 3, item J, upon determining that emissions from these sources represent a substantial portion of the facility's total emissions.

B. All owners or operators of emission reporting facilities, as defined in part 7002.0015, subpart 3a, or facilities issued option B registration permits under part 7007.1120 that choose to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (1), shall calculate emissions based on parts 7019.3030 to 7019.3100, except for any facility which has obtained an option C or D registration permit under part 7007.1125 or 7007.1130.

C. All owners or operators of emission reporting facilities which have obtained an air emission permit under part 7007.1125, registration permit option C, shall report the quantity of each fuel purchased or used (whichever was stated in the facility's registration permit application) in the year for which emissions are being calculated. The report shall apportion the quantity of fuel burned with the type of combustion unit (indirect heating units or internal combustion engines) in which it was burned. The owner or operator shall report the quantity of VOC-containing materials purchased or used (whichever is stated in the facility's registration permit application) in the year for which emissions are being calculated. The owners or operators reporting VOC-containing materials purchases or usage shall also report the weight factor (WF) of the VOC in the materials (weight of VOC per weight of VOC-containing materials) and the density of the materials. The actual emissions shall be calculated by the commissioner.

D. All owners or operators of emission reporting facilities which have obtained an air emission permit under part 7007.1130, registration permit option D, shall report the actual emissions calculated for purposes of compliance demonstration required in part 7007.1130, subpart 3, item E, for the calendar year for which emissions are being reported.

E. All owners or operators of an emission reporting facility submitting an emission inventory based in whole, or in part, on a material balance calculation shall submit a sample material balance calculation with the emission inventory. Such facilities shall also maintain a record of the material safety data sheets or vendor certification of the VOC or sulfur content of the material for each material or fuel used and the material balance calculations for a period of five years after the date of submittal of the emission inventory.

F. The emission inventory may be based on the use of control equipment only if the use of the specific control equipment is required under conditions of a permit or applicable requirement as defined in part 7007.0100, subpart 7, or is included in a notification received by the agency under part 7007.1150, item C. This item is effective on the date three years after EPA grants full program approval of the agency's permit program under title 5 of the Clean Air Act.

Statutory Authority: *MS s.116.07*

History: *21 SR 165*

7019.3030 METHOD OF CALCULATION.

A. The owner or operator of an emission reporting facility, except one issued an option C or D registration permit under part 7007.1125 or 7007.1130, shall calculate the facility's actual emissions using the methods listed in subitems (1) to (4). The methods are listed in a hierarchy of the most preferred method to the least preferred method. The most preferred method available shall be used. Where more than one method is listed in the subitem, they are considered to be equal in the hierarchy and any can be used.

(1) part 7019.3040;

(2) part 7019.3050;

(3) part 7019.3060, 7019.3070, 7019.3080, or 7019.3090, as applicable; or

(4) part 7019.3100.

B. The owner or operator of a facility issued an option B registration permit under part 7007.1120 that chooses to be assessed a fee under part 7002.0025, subpart 1, item C,

subitem (1), shall calculate the facility's actual emissions using the methods listed in subitems (1) to (3). The methods are listed in a hierarchy of the most preferred method to the least preferred method. The most preferred method available shall be used. Where more than one method is listed in the subitem, they are considered to be equal in the hierarchy and any may be used.

- (1) part 7019.3040;
- (2) part 7019.3050; or
- (3) part 7019.3060, 7019.3080, or 7019.3090, as applicable.

The owner or operator of a facility issued an option B registration permit under part 7007.1120 that chooses to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (1), shall not consider the effects of pollution control equipment on emissions from the use of VOC-containing materials when calculating actual emissions for an emissions inventory.

C. For purposes of selecting a calculation method, a method is considered available if the conditions associated with the method in parts 7019.3040 to 7019.3100 are met. The method described in part 7019.3100 may be used, provided that the proposal is submitted to the division manager by September 1 of the first year for which the emissions are being calculated. The commissioner shall reject data submitted using the methods described in parts 7019.3040 to 7019.3090 if the conditions for the method are not fully met.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3040 CONTINUOUS EMISSION MONITOR (CEM) DATA.

A. If an emission reporting facility or a facility issued an option B registration permit under part 7007.1120 that chooses to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (1), has collected emissions data through use of a CEM in compliance with the preconditions in subitems (1) and (2), the facility shall report that data to the agency in its emission inventory. The emission inventory submitted shall be based on all of the CEM data. The requirements in subitems (1) and (2) must be met:

- (1) the CEM has been certified by the commissioner; and
- (2) the CEM data have not been rejected by the commissioner due to failure by the owner or operator to comply with parts 7017.1000, 7019.1000, and 7019.2000; all applicable permit conditions, and any other applicable state or federal laws pertaining to CEM operation.

B. Facilities required to use this method shall include the following information in their emission inventory:

- (1) the total operating time of the applicable emission unit and the total operating time of the CEM;
- (2) an explanation of how the emissions were calculated based on the CEM data. Except for facilities subject to part 7017.1020, for periods when the CEM is down and the emissions unit is operating, missing emissions data shall be substituted with CEM data recorded during a representative period of operation of the emissions unit, and, if applicable, of the control equipment operation during the same calendar year for which the inventory is being submitted. The CEM must have recorded data for at least 90 percent of the hours the emission unit was operated for the calendar year for which the inventory is being submitted. If substitute CEM data meeting these conditions is not available, emissions during periods of CEM downtime shall be calculated using the next highest available method on the hierarchy of methods listed in part 7019.3030; and
- (3) facilities subject to part 7017.1020 shall substitute CEM data in accordance with Code of Federal Regulations, title 40, part 75.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3050 PERFORMANCE TEST DATA.

A. If an emission reporting facility or a facility issued an option B registration permit under part 7007.1120 that chooses to be assessed a fee under part 7002.0025, subpart 1,

item C, subitem (1), has collected representative emission data through the use of performance tests in compliance with the preconditions in items B and C, and if CEM data under part 7019.3040 is not available, the facility shall calculate its emissions based on performance tests. If the emission data is unrepresentative because fuel or material feed used under the test conditions is substantially different than the conditions under which the emissions unit is normally operated or because the emissions unit has been modified, the facility shall calculate its emissions based on the next highest available method. Emissions unit operating load variation from test load does not make the data unrepresentative. In the event that the facility has collected emission data through the use of performance tests and determines that the data is unrepresentative for any reason, the facility shall submit an explanation of why the data is unrepresentative with the emissions calculated using the next highest available method. The commissioner shall determine if the conditions of the performance test were representative based upon the operating data supplied by the facility for the year of the inventory.

B All the requirements of parts 7017.2001 to 7017.2060, including the requirement to notify the agency prior to conducting performance tests as required in part 7017.2030, subpart 1, all other applicable state and federal laws, and all applicable air emission permit conditions relating to performance testing have been complied with.

C. For facilities that are required to conduct annual performance testing, the test was performed during the calendar year for which the emissions are being calculated. If the agency granted the facility an extension to a testing deadline that resulted in the test being performed after the calendar year but prior to the emissions inventory submittal deadline, the data from that test may be used. For facilities that are not required to conduct annual performance testing, the emission factors used are derived from the most recently conducted performance test. Performance test data may not be more than five years older than the last date of the emission inventory period and must be representative of operating conditions during the calendar year for which the emission inventory is being submitted.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3060 VOLATILE ORGANIC COMPOUND (VOC) MATERIAL BALANCE.

If the methods in part 7019.3040 or 7019.3050 are unavailable to an emission reporting facility or a facility issued an option B registration permit under part 7007.1120 that chooses to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (1), the facility may calculate VOC emissions using the material balance method described in this part. This method may be used in conjunction with or instead of emission factors and enforceable limitations methods described in parts 7019.3080 and 7019.3090, where applicable. A person using material balance to calculate VOC emissions shall determine the total VOC emissions (E) as follows:

$$E = (A - B - C) * (1 - CE)$$

where:

A = the amount of VOC entering the process. The amount of VOC used in this calculation shall be the amount certified by the supplier or the maximum amount stated on the material safety data sheet or the amount determined by reference method 24.

B = the amount of VOC incorporated into the product. This includes VOCs chemically transformed in production. 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. If the actual VOC content of the waste is unknown, then C = 0.

CE = 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. The overall efficiency shall be based on efficiency factors, as defined in part 7005.0100, subpart 9b, or shall be based on the overall efficiency verified by a performance test conducted according to parts 7017.2001 to 7017.2060 and 7019.3050. The overall efficiency of a pollution control system that uses a hood, as defined in part 7011.0060, subpart 2, as the emission capture device shall be based on a capture efficiency of 60 percent. If an alternative capture efficiency has been determined by a performance test conducted according to

parts 7017.2001 to 7017.2060 and 7019.3050, that capture efficiency shall be used in the calculation of actual emissions.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3070 SO₂ MATERIAL BALANCE.

If the methods in parts 7019.3040 and 7019.3050 are unavailable to an emission reporting facility, it may calculate sulfur dioxide emissions using the SO₂ material balance method described in this part. A person using this method shall measure the sulfur content of the fuel and assume that all of the sulfur in the fuel is oxidized to sulfur dioxide. This method may be used in conjunction with or instead of emission factors and enforceable limitations methods described in parts 7019.3080 and 7019.3090, where applicable. The sulfur content of each batch of fuel received must be certified by the supplier or an independent laboratory. The sulfur content shall be determined using American Society for Testing and Materials (ASTM) methods. The sulfur dioxide emissions shall be determined by using the following equation:

$$\text{SO}_2 = \%S/100 \times F/2000 \times 2$$

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.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3080 EMISSION FACTORS.

If the methods in parts 7019.3040 and 7019.3050 are unavailable to an emission reporting facility or a facility issued an option B registration permit under part 7007.1120 that chooses to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (1), the facility may calculate its emissions using emission factors as defined in part 7005.0100, subpart 10a, and as described in this part. This method may be used in conjunction with or instead of material balance and enforceable limitations methods described in parts 7019.3060, 7019.3070, and 7019.3090, where applicable. Calculations of actual emissions shall be based on operating data multiplied by an emission factor. Operating data necessary to apply the emission factor used in the calculation of emissions in this method shall be included in the emission inventory. Operating data means the data necessary to apply the emission factor to calculate emissions. For example, tons of material handled is the necessary operating data for an emissions factor expressed as "tons of pollutant/ton of material handled."

Control equipment efficiency shall be based on efficiency factors as defined in part 7005.0100, subpart 9b, or shall be based on the efficiency verified by a performance test conducted according to parts 7017.2001 to 7017.2060 and 7019.3050. Calculations of actual emissions from an emission unit through a pollution control system that uses a hood, as defined in part 7011.0060, subpart 2, as the emission capture device shall be based on a capture efficiency of 80 percent, except those systems that control VOC emissions which shall be based on a capture efficiency of 60 percent. If an alternative capture efficiency has been determined by a performance test conducted according to parts 7017.2001 to 7017.2060 and 7019.3050, that capture efficiency shall be used in the calculation of actual emissions.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3090 ENFORCEABLE LIMITATIONS.

If the methods in part 7019.3040 or 7019.3050 are unavailable to an emission reporting facility or a facility issued an option B registration permit under part 7007.1120 that chooses

to be assessed a fee under part 7002.0025, subpart 1, item C, subitem (1), the facility may calculate actual emissions using any enforceable permit limitation or applicable requirement limitation. This method may be used in conjunction with or instead of material balance and emission factor methods described in parts 7019.3060 to 7019.3080, where applicable. Calculations of actual emissions shall be based on operating data multiplied by the limitation. Operating data and a sample calculation used in the calculation of emissions in this method shall be included in the emission inventory. Operating data means the data upon which the emission limitation is based. For example, dscf (dry standard cubic feet) for an emission limitation expressed as "gr/dscf" (grams per dry standard cubic feet).

Statutory Authority: *MS s 116.07*

History: *21 SR 165*

7019.3100 FACILITY PROPOSAL.

A. The emission reporting facility may propose an alternative method for calculating actual emissions if the emission reporting facility can demonstrate to the satisfaction of the commissioner either:

(1) that the proposed method is more accurate than the methods in parts 7019.3040 to 7019.3090; or

(2) that none of the methods in parts 7019.3040 to 7019.3090 is technically or economically feasible and the proposed method is accurate.

B. The proposal shall include:

(1) a comparison of the accuracy of the proposed method with the alternatives in parts 7019.3040 to 7019.3090;

(2) a detailed description of the proposed method, and

(3) an explanation of why none of the alternatives in parts 7019.3040 to 7019.3090 are technically or economically feasible if the facility is making the proposal under item A, subitem (2).

C. The proposal shall be submitted to the commissioner by September 1 of the year for which the emissions are being calculated. The commissioner shall approve the emission reporting facility's proposal if the commissioner finds that the facility has made the demonstration required under item A. If the commissioner rejects the proposal, the commissioner shall do so by November 30 of the year for which the emissions are being calculated. Approval of a method shall expire no more than five years after the year for which emissions were first calculated. The commissioner shall revoke approval of the method if, after the first year's emission inventory submittal, the owner or operator or the commissioner has determined that the method described under this part no longer accurately calculates each unit's actual emissions. If the commissioner revokes the approval, the commissioner shall do so by November 30 of the year for which the emissions are being calculated.

Statutory Authority: *MS s 116.07*

History: *21 SR 165*