

DRAFT/PROPOSED

**AIR EMISSION PERMIT NO. 12900014-008
Major Amendment**

IS ISSUED TO

Southern Minnesota Beet Sugar Coop

SOUTHERN MINNESOTA BEET SUGAR COOP
83550 County Road 21
Renville, Renville County, MN 56284

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the Permit Applications Table.

The conditions included in Stage 1 of this permit action are effective on the Stage 1 Issuance Date shown below. Stage 1 conditions authorize modification of the facility and the operation of the modified emission units and emissions units at which at the address listed above until final action is taken on Stage 2.

Air Emission Permit No. 12900014-007 remains effective until the Stage 2 Issue Date shown below.

Beginning on the Stage 2 Issue Date shown below, Air Emission Permit No. 12900014-008 supersedes Air Emission Permit No. 12900014-007 and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the State Implementation Plan (SIP) under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Permit Type: Federal Permit; Part 70/Major for NSR/NSR Authorization

Operating Permit Issue Date: January 6, 2012

Stage 1 Issue Date – Authorization to Construct and Operate: <date1>

Stage 2 Issue Date – Major Amendment: <date2>

Operating Permit Expiration: January 6, 2017 -- All Title I Conditions do not expire.

Stage 1 Issuance:

Stage 2 Issuance:

Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for John Linc Stine
Commissioner
Minnesota Pollution Control Agency

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Permit Applications Table

Permit Type	Application Date	Permit Action
Total Facility Operating Permit Reissuance	February 26, 2010	007
Major Amendment	September 20, 2012	008

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	651-296-6300
Outside Metro Area	1-800-657-3864
TTY	651-282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Southern Minnesota Beet Sugar Cooperative (SMBSC) processes sugar from sugar beets for use in many consumer food products. The original facility was built in 1974. SMBSC has about 480 members and grows beets in an eleven county area around the plant. The cooperative employs roughly 250 year-round employees and 350 seasonal employees.

The facility's operation is split into time periods referred to as campaigns. Harvest can begin as early as August and usually ends in November. The beet slicing campaign will generally run from September to March, while the juice processing campaign will generally run through June, and the molasses campaign will run through August. The major sources of air emissions at SMBSC can be divided into two categories: combustion sources and product handling sources. Combustion sources include two boilers and two lime kilns. The largest boiler is controlled by an electrostatic precipitator and the lime kilns are controlled by centrifugal collectors. Product handling sources include sugar handling and conveying equipment along with other product/raw material handling equipment. The majority of the products handling sources are controlled by baghouses with two units controlled by scrubbers. The major source of fugitive emissions at the facility is truck traffic.

MAJOR PERMIT AMENDMENT DESCRIPTION:*Permit Action 008*

This permit action authorizes the installation of a new natural gas-fired boiler (Boiler No. 5). Boiler No. 5 will be used to generate steam to drive an existing electricity generator or for operations in the factory. SMBSC may also use the reduced pressure steam from the electricity generator for operations in the factory. Boiler No. 5 will have a maximum rate heat input capacity of no greater than 257.3 MMBtu/hr and will be equipped with Low-NOx burners.

This permit action also reflects the replacement of an opacity monitor and the recognition by the MPCA of SMBSC's plans to install a cooling tower and add stack heat recovery systems at boiler #3.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: Total Facility

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendix B, Quality Assurance/Quality Control Plan Continuous Emission and Opacity Monitoring dated February 1998 and Appendix C, Insignificant Activities and Applicable Requirements.	Minn. R. 7007.0800, subp. 2
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance (O&M) plan for all air pollution control equipment. The plan shall include: the manufacturer's recommended operating ranges for parameters to be monitored such as pressure drop across the system, liquid flow rate, liquid supply pressure, etc.; corrective action procedures to be followed to return the control equipment to within the specified range(s); corrective action procedures to be followed in the event of a malfunction or breakdown; a description of inspection procedures to be followed; and records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150 and the Fugitive Control Plan for the facility.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0150; Minn. R. 7009.0020
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not federally enforceable.	Minn. R. 7030.0010 - 7030.0080
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16	Minn. R. 7007.0800, subp. 16
Federal Performance Standards: Opacity standards apply at all times except during periods of start-up, shutdown, and malfunction, and as otherwise provided in an applicable requirement or compliance document.	40 CFR Section 60.11(c)
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, and B.	Minn. R. ch. 7017

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2</p>
<p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.</p>	<p>Minn. R. 7017.2025, subp. 3</p>
MONITORING REQUIREMENTS	hdr
<p>Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
RECORDKEEPING	hdr
<p>Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.</p>	<p>Minn. R. 7007. 0800, subp. 5(B)</p>
<p>If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.</p>	<p>Minn. R. 7007.1200, subp. 4</p>
REPORTING/SUBMITTALS	hdr
<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform 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.</p>	<p>Minn. R. 7019.1000, subp. 3</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform 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.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If you need a permit amendment, submit application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H)	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
HYDROGEN SULFIDE REQUIREMENTS	hdr
Hydrogen Sulfide: Emissions from the facility shall not cause or contribute to an ambient concentration that is greater than 0.050 parts per million as a 1/2 hour average not to be exceeded more than 2 times per year.	Minn. R. 7009.0080; Minn. R. 7007.0800, subp. 2
Hydrogen Sulfide: Emissions from the facility shall not cause or contribute to an ambient concentration that is greater than 0.030 parts per million as a 1/2 hour average not to be exceeded more than 2 times in any five consecutive days.	Minn. R. 7009.0080; Minn. R. 7007.0800, subp. 2
Hydrogen Sulfide Monitoring: A Monitoring Network for hydrogen sulfide must be in place and operating in accordance to the permit. The monitoring network must be operating at all times during the months of April through October.	Minn. R. 7007.0800, subp. 4
Hydrogen Sulfide Monitoring Corrective Actions: The operation of the monitors shall be checked, and the data downloaded, weekly. If the data show an exceedance of the hydrogen sulfide standard the Permittee shall: 1) notify the Commissioner or state duty officer no later than 24 hours after the exceedance is discovered; 2) immediately implement the monitoring requirements for stations WS015 through WS027 of National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit MN0040665, at a monitoring frequency of twice per week and a duration to be determined by the Commissioner; OR explain in 1) why the monitoring will not be immediately implemented. (continued below)	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Hydrogen Sulfide Monitoring Corrective Actions (continued): 3) within 7 days after the exceedance is discovered submit a written report to the MPCA addressed to the Air Quality Compliance Tracking Coordinator, 520 Lafayette Road, St. Paul, Minnesota 55155, that: identifies the reason for the elevated levels, evaluates and addresses whether or not the hydrogen sulfide emissions are expected to increase, and recommends whether corrective actions are necessary and a schedule for their implementation. The MPCA staff will evaluate the information contained in the report and notify the Permittee if the corrective actions identified must be implemented.	Minn. R. 7007.0800, subp. 2
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr
These requirements apply if a reasonable possibility (RP) as defined in 40 CFR Section 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of Section 52.21(r)(6)(vi)(b). Even though a particular modification is not subject to New Source Review (NSR), or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by Minn. R. 7007.1150 - 7007.1500.	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following: 1. Project description 2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the EU could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation.	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.1200, subp. 4; Minn. R. 7007.0800, subps. 4 & 5
The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain: a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The annual emissions (actual, plus potential if any part of the project was analyzed using the hybrid test) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5
REASONABLE POSSIBILITY MONITORING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-5**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>The Permittee shall monitor emissions of PM, PM10, and PM2.5 from the project authorized by Air Emission Permit No. 12900014-008, including emissions from EU006, EU007, EU012, EU013, EU014, EU015, EU016, EU017, EU020, EU021, EU022, EU029, EU030, EU031, EU032, EU038, EU039, EU040, EU041, FS002, and FS003; and shall maintain a record of the annual monitored emissions, in tons per year on a calendar year basis, for a period of 5 years following the start of regular operations of EU038.</p>	<p>[Stage 1] Title I Condition: 40 CFR Section 52.21(r)(6)(iii)</p>
<p>The Permittee shall submit a report to the MPCA if the annual emissions of PM, PM10, or PM2.5 in tons per year from the project authorized in Air Emission Permit No. 12900014-008, exceed the baseline actual emissions by a significant amount (as defined in 40 CFR Section 52.21(b)(23)) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR Section 52.21(r)(6)(i)(c). Such report shall be submitted to the Administrator within 60 days after the end of such year. The report shall contain the following:</p> <p>(a) The name, address and telephone number of the major stationary source; (b) The annual emissions as calculated pursuant to 40 CFR Section 52.21(r)(6)(iii); and (c) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).</p>	<p>[Stage 1] Title I Condition: 40 CFR Section 52.21(r)(6)(v) and Minn. R. 7007.3000</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-6**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: GP 001 Miscellaneous Particulate Sources**Associated Items:** EU 015 Lime Slaker

EU 016 Lime Rock Classifier

EU 019 Ash Conveying System

EU 020 Weibull Bin Dust Control System

EU 021 Pellet Conveying System

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735 (applies individually to each emission unit listed under Associated Items). The PTEs are 1.3 lbs/hr , 1.3 lbs/hr, 0.6 lb/hr, 3.7 lbs/hr and 1.0 lb/hr, respectively which are lower than the rule limits, which are 4.3 lb/hr, 4.3 lbs/hr, 1.9 lbs/hr 11.4 lbs/hr and 3.2 lbs/hr; therefore the units are in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity (applies individually to each emission unit listed under Associated Items).	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7** 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: GP 002 Lime production and use**Associated Items:** EU 013 Lime Kiln A

EU 014 Lime Kiln B

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Material Usage: less than or equal to 115,344 tons/year using 12-month Rolling Sum for limestone for EU 013 and EU 014.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 171.4 tons/year using 12-month Rolling Sum based on pre-control emissions for EU 013 and EU 014.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
Fuels Allowed: Industrial oven coke and anthracite coal as the main fuel sources. Natural gas, propane and/or wood as fuels for initiating combustion of the coke.	Minn. R. 7007.0800, subp. 2
RECORDKEEPING	hdr
Material Usage Recordkeeping: once each day record the amount of limestone, coke, and anthracite used in the lime kilns for the previous day. At the end of each calendar month, calculate and record the usage of limestone, coke and anthracite during the previous month and the previous 12-month period.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5
Coke Sulfur Content Recordkeeping: For each coke shipment, the Permittee shall obtain a fuel certification from the fuel supplier, stating the percent sulfur by weight, in the coke. Maintain certification records for a minimum of 5 years from the date of receipt.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5
Anthracite Sulfur Content Recordkeeping: For each anthracite shipment, the Permittee shall obtain a fuel certification from the fuel supplier, stating the percent sulfur by weight, in the anthracite. Maintain certification records for a minimum of 5 years from the date of receipt.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5
Pre-control Sulfur Dioxide Recordkeeping: At the end of each calendar month, the Permittee shall calculate pre-control sulfur dioxide emissions using the fuel usage records, coke and anthracite sulfur content records during the previous month and the previous 12-month period.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-8**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: GP 004 Sugar Bin Climate Control System

Associated Items: CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 015 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 EU 008 Sugar Bin Climate Control System
 EU 009 Sugar Bin Climate Control System
 EU 010 Sugar Bin Climate Control System
 EU 011 Sugar Bin Climate Control System
 SV 013 Sugar Bin Climate Control System
 SV 014 Sugar Bin Climate Control System
 SV 015 Sugar Bin Climate Control System
 SV 016 Sugar Bin Climate Control System

What to do	Why to do it
OPERATIONAL REQUIREMENTS (All requirements apply to each control equipment unit listed above)	hdr
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn.R. 7007.0800, subp. 14
Visible Emissions: The Permittee shall check the fabric filter stacks (SV 013-SV 016) for any visible emissions once each day of operation during daylight hours.	Minn. R. 7011.0075; Minn. R. 7011.0080; Minn. R. 7007.0800, subp. 2
MONITORING REQUIREMENTS	hdr
Daily Inspections: The Permittee shall do the following, once every 24 hours: Inspect the fabric filter stacks (SV 013- SV 016) for any visible emissions during daylight hours.	40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least annually, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	40 CFR Section 64.7(d); Minn. R. 7017.0200
The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200
Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change.	40 CFR Section 64.7(e); Minn. R. 7017.0200
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.	40 CFR Section 64.3; Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Southern Minnesota Beet Sugar Coop
Permit Number: 12900014 - 008

As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-10**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: GP 005 Miscellaneous Particulate Sources (for -008)

Associated Items:

CE 016 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 021 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 025 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 026 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 037 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 038 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 039 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 012 Sugar Conveying/Silo Penthouse Dust Control

EU 022 West Sugar Conveying Equipment

EU 030 Pebble Lime Bin

EU 031 Gypsum Handling System

EU 039 East Sugar Conveying Equipment

EU 040 Bulk Sugar Loadout

EU 041 Sugar Packaging

SV 017 Sugar Conveying/Silo Penthouse Dust Control

SV 027 West Sugar Conveying Equipment

SV 040 Pebble Lime Bin

SV 041 Gypsum Handling System

SV 042 East Sugar Conveying Equipment

SV 043 Bulk Sugar Loadout

SV 044 Sugar Packaging

What to do	Why to do it
OPERATIONAL REQUIREMENTS (All requirements apply to each control equipment unit listed above)	hdr
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn.R. 7007.0800, subp. 14
Visible Emissions: The Permittee shall check the fabric filter stacks (SV 017, SV 027, SV 040-SV 044) for any visible emissions once each day of operation during daylight hours.	Minn. R. 7011.0075; Minn. R. 7011.0080; Minn. R. 7007.0800, subp. 2
MONITORING REQUIREMENTS	hdr
Daily Inspections: The Permittee shall do the following, once every 24 hours: Inspect the fabric filter stacks (SV 017, SV 027, SV 040-SV 044) for any visible emissions during daylight hours.	Minn. R. 7007.0800, subp. 4
Periodic Inspections: On the frequency required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-11 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 001 Boiler No. 1 (Main)**Associated Items:** CE 001 Electrostatic Precipitator - High Efficiency

MR 004 Opacity Monitor

MR 005 O2 Monitor

MR 006 SO2 Monitor

MR 007 NOx Monitor

SV 001 Boiler No. 1 (Main)

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.10 lbs/million Btu heat input using 3-hour Average . The PTE for this boiler is 0.023 lb/mmBtu heat input at maximum capacity.	40 CFR Section 60.42(a)(1); Minn. R. 7011.0555
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity.	40 CFR Section 60.42(a)(2); Minn. R. 7011.0555
Sulfur Dioxide: less than or equal to 0.80 lbs/million Btu heat input for liquid fossil fuels and 1.2 lbs/million Btu heat input for solid fossil fuels, based on a three-hour average. When different fossil fuels are burned simultaneously, the sulfur dioxide standard is determined by proration with the following formula: $PS_{SO_2} = [y(0.8) + z(1.2)]/(y+z)$ <p>where: PS_{SO_2} = prorated SO2 standard y = percentage of total heat input derived from liquid fossil fuels z = percentage of total heat input derived from solid fossil fuels</p> Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.	40 CFR Section 60.43(a); 40 CFR Section 60.43(b); Minn. R. 7011.0555
Nitrogen Oxides: less than or equal to 0.30 lbs/million Btu heat input for liquid fossil fuels, 0.20 lbs/million Btu heat input for gaseous fossil fuels, and 0.70 lbs/million Btu heat input for solid fossil fuels, based on a three-hour average. When different fossil fuels are burned simultaneously, the nitrogen oxides standard is determined by proration with the following formula: $PS_{NOx} = [x(0.20) + y(0.30) + z(0.7)]/(x+y+z)$ <p>where: PS_{NOx} = prorated NOx standard x is the percentage of total heat input derived from gaseous fossil fuels y is the percentage of total heat input derived from liquid fossil fuels z is the percentage of total heat input derived from solid fossil fuels</p>	40 CFR Section 60.44(a); 40 CFR Section 60.44(b); Minn. R. 7011.0555
Fuels Allowed: sub-bituminous coal, fuel oil and natural gas.	Minn. R. 7007.0800, subp. 2
POLLUTION CONTROL REQUIREMENTS (See Subject Item CE 001 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain control equipment (CE 001) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn R. 7011.0070-7011.0080; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 001) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 95 percent control efficiency	Minn R. 7011.0070-7011.0080; Minn. R. 7007.0800, subps. 2 and 14
MONITORING REQUIREMENTS	hdr
Emission Monitoring for SO2: The Permittee shall use CEMS to measure SO2 emissions from SV 001 (EU 001). See also Subject Items MR 006 and Table B for additional monitoring requirements.	40 CFR Section 60.45(a); Minn. R. 7011.0555; Minn. R. 7017.1006
Emission Monitoring for NOx: The Permittee shall use CEMS to measure NOx emissions from SV 001 (EU 001). See also Subject Items MR 007 and Table B for additional monitoring requirements.	40 CFR Section 60.45(a); Minn. R. 7011.0555; Minn. R. 7017.1006

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-12** 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Emission Monitoring for Opacity: The Permittee shall use COMS to measure opacity emissions from SV 001 (EU 001). See also Subject Items MR 004 and Table B for additional monitoring requirements. The COMS data shall also be used in assessing the control device operation as required by 40 CFR Section 64.3(d).	40 CFR Section 64.3(d); Minn. R. 7011.0555; Minn. R. 7017.1006
PERFORMANCE TEST REQUIREMENTS	hdr
Performance Test: due before 12/30/2011 to measure HCl emissions from Boiler 1 (EU 001) to determine emission factor. If the tested emission factor (0.43 lb/hr) is higher than listed in the Title V permit application dated February 26, 2010, the Permittee shall apply for the appropriate permit amendment within 60 days of the Notice of Compliance letter. For additional applicable performance test requirements see "General Performance Test Requirement" in Table A, subject item, "Total Facility."	Minn. R. 7017.2020, subp. 1
Performance Test: due before 12/30/2011 to measure HF emissions from Boiler 1 (EU 001) to determine emission factor. If the tested emission factor (0.25 lb/hr) is higher than listed in the Title V permit application dated February 26, 2010, the Permittee shall apply for the appropriate permit amendment within 60 days of the Notice of Compliance letter. For additional applicable performance test requirements see "General Performance Test Requirement" in Table A, subject item, "Total Facility."	Minn. R. 7017.2020, subp. 1
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL BOILERS AREA SOURCES REQUIREMENTS, 40 CFR pt. 63, subpart JJJJJ- COMPLIANCE DATE IS 07/19/2014	hdr
At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.11205
Mercury: less than or equal to 4.8E-06 lbs/million Btu heat input using 3-hour Average . 4.8E-06 means 0.000048.	40 CFR Section 63.11201(a)
Carbon Monoxide: less than or equal to 400 parts per million by volume on a dry basis corrected to 3 percent oxygen.	40 CFR Section 63.11201(a)
Minimize the boiler startup and shutdown periods following the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.	40 CFR Section 63.11201(b)
The Permittee must comply with the following work practice standards, emission reduction measure, and management practices: Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. The energy assessment must include (1) A visual inspection of the boiler system; (2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints; (3) Inventory of major systems consuming energy from affected boiler(s); (4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; (5) A list of major energy conservation measures; (continued below)	40 CFR Section 63.11201(b); 40 CFR Section 63.11196(a)(3); 40 CFR Section 63.11210(c)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-13**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

(Continued from above)	40 CFR Section 63.11201(b); 40 CFR Section 63.11196(a)(3); 40 CFR Section 63.11210(c)
(6) A list of the energy savings potential of the energy conservation measures identified; (7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.	
The Permittee must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed and submit, upon request, the energy assessment report.	40 CFR Section 63.11214 (c)
Electrostatic Precipitator Control: The Permittee must comply with the following: Maintain opacity to less than or equal to 10 percent opacity (daily block average); OR Maintain the secondary power input of the electrostatic precipitator at or above the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.	40 CFR Section 63.11201(c)
The Permittee must meet these operating limits: Fuel Analysis: Maintain the fuel type or fuel mixture (annual average) such that the mercury emission rates calculated according to 40 CFR Section 63.11211(b) is less than the applicable emission limits for mercury. Performance Stack Testing: For boilers that demonstrate compliance with a performance stack test, maintain the operating load of each unit such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test. Continuous Oxygen Monitor: Maintain the oxygen level at or above the lowest 1-hour average oxygen level measured during the most recent CO performance stack test.	40 CFR Section 63.11201(c)
These standards apply at all times.	40 CFR Section 63.11201(d)
To conduct a performance test for mercury, the Permittee must do the following: a. Select sampling ports location and the number of traverse points. b. Determine velocity and volumetric flow-rate of the stack gas. c. Determine oxygen and carbon dioxide concentrations of the stack gas. d. Measure the moisture content of the stack gas. e. Measure the mercury emission concentration. f. Convert emissions concentration to lb/mmBtu emission rates	40 CFR Section 63.11212
Performance Test: If the Permittee is required to conduct a performance stack test, submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin.	40 CFR Section 63.11225; 40 CFR Section 63.
The Permittee must use the following for mercury testing: Method 1 in appendix A1 to part 60. Method 2, 2F, or 2G in appendix A2 to part 60. Method 3A or 3B in appendix A2 to part 60 or ASTM D652200 (Reapproved 2005), a or ANSI/ASME PTC 19.101981. Method 4 in appendix A3. Method 29, 30A, or 30B in appendix A8 to part 60 or Method 101A in appendix B to part 61 or ASTM Method D678402. Collect a minimum 2 dscm of sample volume with Method 29 of 101A per run. Use a minimum run time of 2 hours with Method 30A. Method 19 F-factor methodology in appendix A-7 to part 60.	40 CFR Section 63.11212
To conduct a performance test for carbon monoxide, the Permittee must do the following: a. Select the sampling ports location and the number of traverse points. b. Determine oxygen and carbon dioxide concentrations of the stack gas. c. Measure the moisture content of the stack gas. d. Measure the carbon monoxide emission concentration.	40 CFR Section 63.11212
The Permittee must use the following for carbon monoxide testing: Method 1 in appendix A1 to part 60 of this chapter. Method 3A or 3B in appendix A2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), a or ANSI/ASME PTC 19.10,1981 Method 4 in appendix A3 to part 60 of this chapter. Method 10, 10A, or 10B in appendix A4 to part 60 of this chapter or ASTM D6522-00 (Reapproved 2005) a and a minimum 1 hour sampling time per run.	40 CFR Section 63.11212

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-14**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>The Permittee must conduct fuel analysis according to the procedures in (b) and (c) as listed below. You are not required to conduct fuel analysis for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analysis only for fuels and units that are subject to emission limits for mercury.</p> <p>(b) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures list below. Each composite sample must consist of a minimum of three samples collected at approximately equal intervals during a test run period.</p> <p>(c) Determine the concentration of mercury in the fuel in units of pounds per million Btu of each composite sample for each fuel type according to the procedures as listed below.</p>	40 CFR Section 63.11213
<p>The Permittee must comply with the following requirements for fuel analysis testing for mercury:</p> <p>a. Collect fuel samples use procedure in 40 CFR Section 63.11213(b) or ASTM D2234/ D2234M (for coal) or equivalent.</p> <p>b. Compose fuel samples use procedure in 40 CFR Section 63.11213(b) or equivalent.</p> <p>c. Prepare composited fuel samples use EPA SW 846 3050B (for solid samples) or EPA SW 846 3020A (for liquid samples) or ASTM D2013/D2013M (for coal) or equivalent.</p> <p>d. Determine heat content of the fuel type use ASTM D5865 a (for coal) or equivalent.</p> <p>e. Determine moisture content of the fuel type use ASTM D3173 a or ASTM E871 a or equivalent.</p> <p>f. Measure mercury concentration in fuel sample ASTM D6722 (for coal) or EPA SW 846 7471B (for solid samples) or EPA SW 8467470A (for liquid samples) or equivalent.</p> <p>g. Convert concentrations into units of lb/mmBtu of heat content.</p>	40 CFR Section 63.11213
<p>The Permittee must comply with the following requirements for establishing operating limits for mercury based on electrostatic precipitator operating parameters. The Permittee must establish a site-specific minimum secondary electric power according to 40 CFR Section 63.11211(b) using data from the secondary electric power monitors during the mercury performance stack test.</p> <p>The Permittee must collect secondary electric power input data every 15 minutes during the entire period of the performance stack tests; and Determine the secondary electric power input for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.</p>	40 CFR Section 63.11211(b)
<p>The Permittee must comply with the following requirements for establishing operating limits for mercury based on activated carbon injection, the Permittee must establish a site-specific minimum activated carbon injection rate operating limit according to 40 CFR Section 63.11211(b) by using the data from the activated carbon rate monitors and mercury performance stack tests.</p> <p>(Continued below)</p>	40 CFR Section 63.11211(b)
<p>(Continued from above)</p> <p>The Permittee must do the following:</p> <p>(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance stack tests;</p> <p>(b) Determine the average activated carbon injection rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.</p> <p>(c) When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction (e.g., actual heat input divided by heat input during performance stack test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.</p>	40 CFR Section 63.11211(b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-15**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>The Permittee must comply with the following requirements for establishing operating limits for carbon monoxide based on oxygen, the Permittee must establish a unit-specific limit for minimum oxygen level according to 40 CFR Section 63.11211(b) by using the data from the oxygen monitor specified in 40 CFR 63.11224(a).</p> <p>The Permittee must do the following: You must collect oxygen data every 15 minutes during the entire period of the performance stack tests; and determine the average oxygen concentration for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.</p>	40 CFR Section 63.11211; 40 CFR Section 63.11224
<p>The Permittee must minimize the boiler startup and shutdown periods following the manufacturer's recommended procedures, if available.</p> <p>If manufacturer's recommended procedures are not available, the Permittee must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. The Permittee must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.</p>	40 CFR Section 63.11214(d); 40 CFR Section 63.11201
<p>The Permittee must conduct all applicable performance (stack) tests according to 40 CFR Section 63.11212 on an triennial basis, unless you follow the requirements listed in 40 CFR Section 63.11220(b) through (d). Triennial performance tests must be completed no more than 37 months after the previous performance test, unless you follow the requirements listed in 40 CFR Section 63.11220(b) through (d).</p> <p>(Continued below)</p>	40 CFR Section 63.11220; 40 CFR Section 63.11212
<p>(Continued from above)</p> <p>(b) The Permittee can conduct performance stack tests less often for mercury if your performance stack tests for the pollutant for at least 3 consecutive years show that your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, you do not have to conduct a performance stack test for that pollutant for the next 2 years. You must conduct a performance stack test during the third year and no more 37 months after the previous performance stack test.</p> <p>(Continued below)</p>	40 CFR Section 63.11220; 40 CFR Section 63.11212
<p>(Continued from above)</p> <p>(c) If your boiler continues to meet the emission limit for mercury, you may choose to conduct performance stack tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance stack test must be conducted no more than 37 months after the previous performance test.</p> <p>(d) If you have an applicable CO emission limit, you must conduct triennial performance tests for CO according to 40 CFR Section 63.11212. Each triennial performance test must be conducted no more than 37 months after the previous performance test.</p>	40 CFR Section 63.11220; 40 CFR Section 63.11212
<p>If the Permittee demonstrate compliance with the mercury emission limit based on fuel analysis, the Permittee must conduct a fuel analysis according to 40 CFR Section 63.11213 for each type of fuel burned monthly. If you plan to burn a new type of fuel or fuel mixture, you must conduct a fuel analysis before burning the new type of fuel or mixture in your boiler. You must recalculate the mercury emission rate using Equation 1 of 40 CFR Section 63.11211. The recalculated mercury emission rate must be less than the applicable emission limit.</p>	40 CFR Section 11214(e); 40 CFR Section 63.11211; 40 CFR Section 63.11213

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-16**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>The Permittee must monitor and collect data according to 40 CFR Section 63.11221(b) through (d).</p> <p>(b) The Permittee must operate the monitoring system and collect data at all required intervals at all times the affected source is operating except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, (see section 40 CFR Section 63.8(c)(7)) and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunction.</p> <p>(Continued below)</p>	40 CFR Section 63.11221; 40 CFR Section 63.8(c)(7)
<p>(Continued from above)</p> <p>The Permittee is required to effect monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.</p> <p>(c) The Permittee may not use data recorded during monitoring system malfunctions or out of control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The Permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system.</p> <p>(Continued below)</p>	40 CFR Section 63.11221; 40 CFR Section 63.8(c)(7)
<p>(Continued from above)</p> <p>(d) Except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation of the monitoring requirements.</p>	40 CFR Section 63.11221; 40 CFR Section 63.8(c)(7)
<p>The Permittee must demonstrate continuous compliance with the each limit and operating limit that applies to you according to the methods listed below and (1) through (4).</p> <p>(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under 40 CFR Sections 63.7 and 63.11196, whichever date comes first, you must continuously monitor the operating parameters. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits constitutes a deviation from your operating limits established under Subpart JJJJJJ, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.</p> <p>(continued below)</p>	40 CFR Section 63.11222; 40 CFR Section 63.7; 40 CFR Section 63.11196; 40 CFR Section 63.11211
<p>(continued from above)</p> <p>(2) The Permittee must keep records of the type and amount of all fuels burned in each boiler during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in lower emissions of mercury than the applicable emission limit (if you demonstrate compliance through fuel analysis), or result in lower fuel input of mercury than the maximum values calculated during the last performance stack test (if you demonstrate compliance through performance stack testing).</p> <p>(3) If you plan to burn a new type of fuel, you must determine the mercury concentration for any new fuel type in units of pounds per million Btu, using the procedures in Equation 1 of 40 CFR Section 63.11211 based on supplier data or your own fuel analysis, and meet the requirements (3)(i) or (ii) as follows:</p> <p>(continued below)</p>	40 CFR Section 63.11222; 40 CFR Section 63.7; 40 CFR Section 63.11196; 40 CFR Section 63.11211

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-17** 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>(continued from above)</p> <p>(i) The recalculated mercury emission rate must be less than the applicable emission limit.</p> <p>(ii) If the mercury concentration is higher than mercury fuel input during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in 40 CFR Section 63.11212 to demonstrate that the mercury emissions do not exceed the emission limit.</p> <p>(continued above)</p>	<p>40 CFR Section 63.11222; 40 CFR Section 63.7; 40 CFR Section 63.11196; 40 CFR Section 63.11211</p>
<p>The Permittee must do the following:</p> <p>For Opacity:</p> <p>a. Collecting the opacity monitoring system data according to 40 CFR Sections 63.11224(e) and 63.11221; and</p> <p>b. Reducing the opacity monitoring data to 6-minute averages; and</p> <p>c. Maintaining opacity to less than or equal to 10 percent (daily block average).</p> <p>For Electrostatic precipitator secondary amperage and voltage, or total power input:</p> <p>a. Collecting the secondary amperage and voltage, or total power input monitoring system data for the electrostatic precipitator according to 40 CFR Sections 63.11224 and 63.11220; and</p> <p>b. Reducing the data to 12-hour block averages; and</p> <p>c. Maintaining the 12-hour average secondary amperage and voltage, or total power input at or above the operating limits established during the performance test according to 40 CFR Section 63.11214.</p> <p>(continued below)</p>	<p>40 CFR Section 63.11222; 40 CFR Section 63.7; 40 CFR Section 63.11196; 40 CFR Section 63.11211</p>
<p>(Continued from above)</p> <p>Fuel pollutant content:</p> <p>a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to 40 CFR Section 63.11214 as applicable; and</p> <p>b. Keeping monthly records of fuel use according to 40 CFR Section 63.11222.</p> <p>Oxygen content:</p> <p>a. Continuously monitor the oxygen content in the combustion exhaust according to 40 CFR Section 63.11224.</p> <p>b. Maintain the 12-hour average oxygen content at or above the operating limit established during the most recent carbon monoxide performance test.</p>	<p>40 CFR Section 63.11222; 40 CFR Section 63.7; 40 CFR Section 63.11196; 40 CFR Section 63.11211</p>
<p>The Permittee must report each instance in which you did not meet each emission limit and operating limit. These instances are deviations from the emission limits in this subpart. These deviations must be reported according to the requirements in 40 CFR Section 63.11225.</p>	<p>40 CFR Section 63.11222; 40 CFR Section 63.7; 40 CFR Section 63.11196; 40 CFR Section 63.11211</p>
<p>The Permittee must install, operate, and maintain a continuous oxygen monitor according to the procedures in (a)(1) through (6) by 07/21/2014. The oxygen level shall be monitored at the outlet of the boiler.</p> <p>(1) Each monitor must be installed, operated, and maintained according to the applicable procedures under Performance Specification 3 at 40 CFR pt. 60, Appendix B, and according to the site-specific monitoring plan developed according to paragraph (c) 40 CFR Section 63.11224.</p> <p>(2) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR Section 63.8(e) and according to Performance Specification 3 at 40 CFR pt. 60, Appendix B.</p> <p>(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.</p> <p>(4) The CEMS data must be reduced as in 40 CFR Section 63.8(g)(2).</p> <p>(5) You must calculate and record the 12-hour block average concentrations.</p> <p>(continued below)</p>	<p>40 CFR Section 63.11224; 40 CFR Section 63.11201; 40 CFR Section 63.11196</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-18**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

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<p>(continued from above)</p> <p>(6) For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, excluding data collected during periods when the monitoring system malfunctions or is out of control, during associated repairs, and during required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments). Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system malfunctions or is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Periods when data are unavailable because of required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments) do not constitute monitoring deviations</p>	<p>40 CFR Section 63.11224; 40 CFR Section 63.11201; 40 CFR Section 63.11196</p>
<p>If you demonstrate compliance with any applicable emission limit through stack testing and subsequent compliance with operating limits, the Permittee must develop a site-specific monitoring plan according to the requirements in (c)(1) through (4) listed below. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under 40 CFR Section 63.8(f).</p> <p>1) For each continuous monitoring system (CMS) required in this section, you must develop, and submit to the EPA Administrator for approval upon request, a site-specific monitoring plan that addresses ((1)(i) through (iii) below. You must submit this site-specific monitoring plan (if requested) at least 60 days before your initial performance evaluation of your CMS.</p> <p>(continued below)</p>	<p>40 CFR Section 63.11224(c)</p>
<p>(continued from above)</p> <p>(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).</p> <p>(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.</p> <p>(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).</p> <p>(2) In your site-specific monitoring plan, you must also address paragraphs (2)(i) through (iii) below:</p> <p>(i) Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR Section 63.8(c)(1), (3), and (4)(ii).</p> <p>(ii) Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR Section 63.8(d).</p> <p>(continued below)</p>	<p>40 CFR Section 63.11224(c)</p>
<p>(continued from above)</p> <p>(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR Section 63.10(c), (e)(1), and (e)(2)(i).</p> <p>(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.</p> <p>(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.</p>	<p>40 CFR Section 63.11224(c)</p>
<p>If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system according to the procedures in (1) through (5) listed below.</p> <p>(1) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.</p> <p>(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(continued below)</p>	<p>40 CFR Section 63.11224(d)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-19**

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Facility Name: Southern Minnesota Beet Sugar Coop

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<p>(continued from above)</p> <p>(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.</p> <p>(4) Determine the 12-hour block average of all recorded readings, except as provided in (d)(3) above.</p> <p>(5) Record the results of each inspection, calibration, and validation check.</p>	40 CFR Section 63.11224(d)
<p>The Permittee must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in (1) through (7) listed below for your opacity operating limit.</p> <p>(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 of 40 CFR pt. 60, Appendix B.</p> <p>(2) You must conduct a performance evaluation of each COMS according to the requirements in 40 CFR Section 63.8 and according to Performance Specification 1 of 40 CFR pt. 60, Appendix B.</p> <p>(3) As specified in 40 CFR Section 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.</p> <p>(continued below)</p>	40 CFR Section 63.11224(e)
<p>(continued from above)</p> <p>(4) The COMS data must be reduced as specified in 40 CFR Section 63.8(g)(2).</p> <p>(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in 40 CFR Section 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.</p> <p>(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of 40 CFR Section 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.</p> <p>(7) You must determine and record all the 1-hour block averages collected for periods during which the COMS is not out of control.</p>	40 CFR Section 63.11224(e)
<p>By March 1, of each year, the Permittee will prepare and submit an annual compliance certification report for the previous calendar year containing the information in items (1) through (3) below. You must submit the report by March 15, if you had any instances described by item (3) below. The Permittee may prepare only a biennial compliance report instead of a semi-annual compliance report.</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of Supart JJJJJ.</p> <p>(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.</p>	40 CFR Section 63.11125(b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-20****04/02/13**

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>The Permittee must maintain the records (1), (2), (4) and (5) listed below.</p> <p>(1) As required in 40 CFR Section 63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.</p> <p>(2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR Section 63.11214 as specified (2)(i) and (ii) listed below.</p> <p>(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.</p> <p>(ii) Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel, including whether the fuel has received a nonwaste determination by you or EPA, and the total fuel usage amount with units of measure.</p>	40 CFR Section 63.11125(c)
<p>(continued from above)</p> <p>(4) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.</p> <p>(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR Section 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.</p>	40 CFR Section 63.11125(c)
<p>The Permittee must keep the records of all inspection and monitoring data required by 40 CFR Sections 63.11221 and 63.11222, and the information identified in (6)(i) through (vi) listed below for each required inspection or monitoring.</p> <p>(i) The date, place, and time of the monitoring event.</p> <p>(ii) Person conducting the monitoring.</p> <p>(iii) Technique or method used.</p> <p>(iv) Operating conditions during the activity.</p> <p>(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.</p> <p>(vi) Maintenance or corrective action taken (if applicable)</p>	40 CFR Section 63.11125(c)(6); 40 CFR Section 63.11221; 40 CFR Section 63.11222
Records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1). You must keep each record for 5 years following the date of each recorded action.	40 CFR Section 63.11125(d)
As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in 40 CFR Section 63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/erttool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.	40 CFR Section 63.11125(e)
<p>To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements below (1) through (9) and must prove by a preponderance of evidence that:</p> <p>(1) The excess emissions:</p> <p>(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and</p> <p>(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices, and</p> <p>(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and</p> <p>(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and</p> <p>(continued below)</p>	40 CFR Section 63.11226(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-21**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

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(continued from above) (2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and (3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and (4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and (5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and (6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and (continued below)	40 CFR Section 63.11226(a)
(continued from above) (7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and (8) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and (9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.	40 CFR Section 63.11226(a)
Notification. The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in 40 CFR Section 63.11201 to demonstrate, with all necessary supporting documentation, that it has met the requirements. (continued below)	40 CFR Section 63.11226(b)
(continued from above) The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.	40 CFR Section 63.11226(b)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-22**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 003 Boiler No. 3**Associated Items:** SV 002 Boiler No. 3

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.60 lbs/million Btu heat input using 3-hour Rolling Average . The PTE for this boiler is 0.11 lb/mmBtu heat input at maximum capacity.	Minn. R. 7011.0510, subp. 1
Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input using 3-hour Rolling Average when burning fuel oil. Compliance with fuel restrictions requirement constitutes compliance with this limit.	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
Carbon Dioxide Equivalent: less than or equal to 21000 tons/year using 12-month Rolling Sum to be calculated each month for the previous 12-month period as described later in this permit. This condition is effective upon the installation of EU 038 (Boiler No. 5). This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act.	Minn. R. 4410.4300 subp. 5(B) to avoid environmental review; Minn. R. 7007.0800, subp. 2
Fuels Allowed: fuel oil and natural gas only	Minn. R. 7007.0800, subp. 2
Recordkeeping: The Permittee shall record each month the type of fuel used in the boiler.	Minn. R. 7007.0800, subps. 5 and 14
COMPLIANCE WITH CO ₂ e LIMIT	hdr
The Permittee shall install and operate onsite totalizing flow meters to record the natural gas consumed by EU 003. The meters shall record the natural gas use in standard cubic feet and shall be able to be read each day. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act.	Minn. R. 4410.4300 subp. 5(B) to avoid environmental review; Minn. R. 7007.0800, subp. 4 & 5
The Permittee shall install and operate onsite totalizing flow meters to record the fuel oil consumed by EU 003. The meters shall record the fuel oil consumption in gallons and shall be able to be read each day. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act.	Minn. R. 4410.4300 subp. 5(B) to avoid environmental review; Minn. R. 7007.0800, subp. 4 & 5
Determining monthly and 12-month rolling CO ₂ e emissions from fuel consumption. (A) On the 1st day of each month, the Permittee shall record the natural gas consumption from the meters. By the 15th day of each month the Permittee shall calculate the monthly natural gas CO ₂ e emissions by: (1) Converting the monthly volume of natural gas consumed to heat input from natural gas using an energy factor provided by the natural gas supplier, if available. If no such factor is available, a factor of 1020 Btu/scf shall be used. (2) Calculating the monthly CO ₂ , CH ₄ , and N ₂ O emissions from natural gas consumption by multiplying the monthly natural gas heat input by applicable emission factors in Tables C-1 and C-2 of 40 CFR Part 98. (3) Multiplying the emissions of CO ₂ , CH ₄ , and N ₂ O from natural gas consumption by respective Global Warming Potentials (found in Table A-1 to Subpart A of 40 CFR Part 98) and then summing the resulting values to determine the monthly natural gas CO ₂ e.	Minn. R. 4410.4300 subp. 5(B) to avoid environmental review; Minn. R. 7007.0800, subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-23**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>Determining monthly and 12-month rolling CO₂e emissions from fuel consumption. (continued)</p> <p>(B) On the 1st day of each month, the Permittee shall record the fuel oil consumption from the meters. By the 15th day of each month the Permittee shall calculate the monthly fuel oil CO₂e emissions by:</p> <p>(1) Converting the monthly volume of fuel oil consumed to heat input from fuel oil using an energy factor provided by the fuel oil supplier, if available. If no such factor is available, a factor of 140,000 Btu/gal shall be used.</p> <p>(2) Calculating the monthly CO₂, CH₄, and N₂O emissions from fuel oil consumption by multiplying the monthly fuel oil heat input by applicable emission factors in Tables C-1 and C-2 of 40 CFR Part 98.</p> <p>(3) Multiplying the emissions of CO₂, CH₄, and N₂O from fuel oil consumption by respective Global Warming Potentials (found in Table A-1 to Subpart A of 40 CFR Part 98) and then summing the resulting values to determine the monthly fuel oil CO₂e.</p>	<p>Minn. R. 4410.4300 subp. 5(B) to avoid environmental review; Minn. R. 7007.0800, subp. 4 & 5 CONTINUED</p>
<p>Determining monthly and 12-month rolling CO₂e emissions from fuel consumption. (continued)</p> <p>(C) By the 15th day of each month the Permittee shall calculate the 12-month rolling CO₂e emissions for the previous 12 months by:</p> <p>(1) Adding the natural gas CO₂e emissions to the fuel oil CO₂e emissions for each of the most recent 12 months to determine the CO₂e emissions for each month.</p> <p>(2) Adding the total monthly CO₂e emissions for the most recent calendar month to the monthly CO₂e emissions for the eleven calendar months immediately preceding the most recent calendar month.</p> <p>This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act.</p>	<p>Minn. R. 4410.4300 subp. 5(B) to avoid environmental review; Minn. R. 7007.0800, subp. 4 & 5 CONTINUED</p>
<p>Recordkeeping: Maintain a file of all reports and records of natural gas and fuel oil consumption and calculated CO₂e emissions for at least five years.</p> <p>This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act.</p>	<p>Minn. R. 7007.0800, subp. 5</p>
<p>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources Requirements, 40 CFR pt. 63, subp. JJJJJJ, Compliance Date is 07/19/2014</p>	<p>hdr</p>
<p>At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.</p>	<p>40 CFR Section 63.11205</p>
<p>The Permittee must comply with the following work practice standards, emission reduction measure, and management practices:</p> <p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. The energy assessment must include</p> <p>(1) A visual inspection of the boiler system;</p> <p>(2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;</p> <p>(3) Inventory of major systems consuming energy from affected boiler(s);</p> <p>(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;</p> <p>(5) A list of major energy conservation measures;</p> <p>(Continued below)</p>	<p>40 CFR Section 63.11201(b); 40 CFR Section 63.11196(a)(3); 40 CFR Section 63.11210(c)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-24**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

(Continued from above)	40 CFR Section 63.11201(b); 40 CFR Section 63.11196(a)(3); 40 CFR Section 63.11210(c)
(6) A list of the energy savings potential of the energy conservation measures identified; (7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.	
The Permittee must conduct a performance tune-up according to 40 CFR Section 63.11223(b) and submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.	40 CFR Section 63.11214(b); 40 CFR Section 63.11223(b)
The Permittee must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed and submit, upon request, the energy assessment report.	40 CFR Section 63.11214(c)
The Permittee must conduct a tune-up boiler biennially, no more that 25 months after the previous tune-up. The first biennial tune-up must take place no later than March 21, 2012.	40 CFR Section 63.11201(b); 40 CFR Section 63.11223(a); 40 CFR Section 63.11196(a)(1); 40 CFR Section 63.11210(c)
The Permittee must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in (1) through (7) as follows. (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months). (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. (4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available. (continued below)	40 CFR Section 63.11223
(continued from above) (5) Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). (6) Maintain onsite and submit, if requested by the Administrator, biennial report containing the information in (6)(i) through (iii) below: (i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler. (ii) A description of any corrective actions taken as a part of the tune-up of the boiler. (iii) The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. (7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.	40 CFR Section 63.1125(d); 40 CFR Section 63.11223
By March 1, of each year, the Permittee will prepare and submit an annual compliance certification report for the previous calendar year containing the information in items (1) through (3) below. You must submit the report by March 15, if you had any instances described by item (3) below. The Permittee may prepare only a biennial compliance report instead of a semi-annual compliance report. (1) Company name and address. (2) Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of Supart JJJJJJ. (3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.	40 CFR Section 63.1125(b)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Southern Minnesota Beet Sugar Coop
Permit Number: 12900014 - 008

Records must be in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1). You must keep each record for 5 years following the date of each recorded action.	40 CFR Section 63.11125(d)
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-26**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 006 Pellet Cooler Dust Control System**Associated Items:** CE 010 Centrifugal Collector - Medium Efficiency

CE 027 Centrifugal Collector - Medium Efficiency

CE 028 Centrifugal Collector - Medium Efficiency

SV 011 Pellet Cooler Dust Control System

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 10 percent opacity (subp. 3(D)) - discharged from SV011(Discharge PM from control equipment)	Minn. R. 7011.1005, subp. 3(D)
The Permittee shall clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with Reasonable Available Control Technology (RACT).	Minn. R. 7011.1005, subp. 1(A)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (All requirements apply to each control equipment unit listed above under Associated Items)	hdr
The control equipment CE027 and CE028 are the primary control equipment and considered listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall operate and maintain the associated centrifugal collectors (CE010, CE027 and CE028) at all times that the pellet cooler dust control system is operating. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7011.0065, subp. 2(A), Minn. R. 7007.0800, subp. 2 and 14
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the cyclone in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than 80 percent control efficiency	Minn. R. 7011.1005, subp. 3(E); Minn. R. 7011.0070
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 60 percent control efficiency	Minn. R. 7011.1005, subp. 3(E); Minn. R. 7011.0070
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 15 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
Pressure Drop: greater than or equal to 1.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is set pursuant to Minn. R. 7017.0225, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7011.0075, Minn. R. 7011.0080, Minn. R. 7007.0800, subp. 2
MONITORING AND RECORDKEEPING REQUIREMENTS	hdr
Periodic Inspections: At least once per year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping: Once each operating day, measure and record the pressure drop in inches of water column across the cyclone. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	40 CFR Section 64.3; Minn. R. 7017.0200
Recorded values outside the range specified in this permit are considered deviations as defined by Minn. R. 7007.0100, subp. 8a.	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-27**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - the recorded pressure drop is outside the required operating range; or - the cyclone or any of its components are found during the inspections to need repair. <p>Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for each control device.</p>	40 CFR Section 64.7(d); Minn. R. 7017.0200
<p>Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored cyclone is in operation.</p>	40 CFR Section 64.7(b); Minn. R. 7017.0200
<p>Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration.</p>	40 CFR Section 64.3; Minn. R. 7017.0200
<p>Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change.</p>	40 CFR Section 64.7(e); Minn. R. 7017.0200
<p>As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.</p>	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200
<p>The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.</p>	40 CFR Section 64.9(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-28**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 007 Sugar Drier/Cooler**Associated Items:** CE 011 Venturi Scrubber

SV 012 Sugar Drier/Cooler

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least ¼ mile from any residence or public roadway, and EU 007 is controlled by control equipment which has a collection efficiency of 85% by weight, EU 007 considered to be in compliance with this requirement.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item CE 011 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 90 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 90 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 90 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-29**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 008 Sugar Bin Climate Control System**Associated Items:** CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Sugar Bin Climate Control System

SV 013 Sugar Bin Climate Control System

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least ¼ mile from any residence or public roadway, and EU 008 is controlled by control equipment which has a collection efficiency of 85% by weight, EU 008 considered to be in compliance with this requirement.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 004 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 93 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-30**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 009 Sugar Bin Climate Control System**Associated Items:** CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Sugar Bin Climate Control System

SV 014 Sugar Bin Climate Control System

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least ¼ mile from any residence or public roadway, and EU 009 is controlled by control equipment which has a collection efficiency of 85% by weight, EU 009 considered to be in compliance with this requirement.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 004 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 93 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-31**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 010 Sugar Bin Climate Control System**Associated Items:** CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Sugar Bin Climate Control System

SV 015 Sugar Bin Climate Control System

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least ¼ mile from any residence or public roadway, and EU 010 is controlled by control equipment which has a collection efficiency of 85% by weight, EU 010 considered to be in compliance with this requirement.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 004 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 93 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-32**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 011 Sugar Bin Climate Control System**Associated Items:** CE 015 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Sugar Bin Climate Control System

SV 016 Sugar Bin Climate Control System

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least ¼ mile from any residence or public roadway, and EU 011 is controlled by control equipment which has a collection efficiency of 85% by weight, EU 011 considered to be in compliance with this requirement.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 004 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 93 percent control efficiency	Minn. R. 7011.0070; Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-33**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 012 Sugar Conveying/Silo Penthouse Dust Control**Associated Items:** CE 016 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 005 Miscellaneous Particulate Sources (for -008)

SV 017 Sugar Conveying/Silo Penthouse Dust Control

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. The uncontrolled PTE is 4.0 lbs/hr which is lower than the rule limit, which is 33.8 lb/hr; therefore the unit is in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 005 for specific control equipment operating requirements)	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-34**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 013 Lime Kiln A**Associated Items:** CE 030 Centrifugal Collector - High Efficiency

CE 032 Spray Tower

CE 034 First Carbonation-Inherent

CE 035 Second Carbonation-N-Inherent

CE 036 Second Carbonation-S- Inherent

GP 002 Lime production and use

SV 018 Lime Kiln A (loading)

SV 036 Lime Kilns Excess Exhausts

SV 037 First Carbonation

SV 038 Second Carbonation North

SV 039 Second Carbonation South

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least ¼ mile from any residence or public roadway, and EU 013 is controlled by control equipment which has a collection efficiency of 85% by weight, EU 013 considered to be in compliance with this requirement.	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Sulfur Dioxide: less than or equal to 4.0 lbs/million Btu heat input for solid fossil fuels.	Minn. R. 7011.0610, subp. 2(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Items CE 030 and CE 032 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain control equipment (CE 030) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 030) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 030) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 80 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment (CE 032) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 90 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 032) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 90 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 032) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 20	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-35**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 014 Lime Kiln B**Associated Items:** CE 031 Centrifugal Collector - High Efficiency

CE 033 Spray Tower

CE 034 First Carbonation-Inherent

CE 035 Second Carbonation-N-Inherent

CE 036 Second Carbonation-S- Inherent

GP 002 Lime production and use

SV 019 Lime Kiln B (loading)

SV 036 Lime Kilns Excess Exhausts

SV 037 First Carbonation

SV 038 Second Carbonation North

SV 039 Second Carbonation South

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least ¼ mile from any residence or public roadway, and EU 014 is controlled by control equipment which has a collection efficiency of 85% by weight, EU 014 considered to be in compliance with this requirement.	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Sulfur Dioxide: less than or equal to 4.0 lbs/million Btu heat input for solid fossil fuels.	Minn. R. 7011.0610, subp. 2(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Items CE 031 and CE 033 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain control equipment (CE 031) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 031) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 031) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 80 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment (CE 033) such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 90 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 033) such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 90 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain control equipment (CE 033) such that it achieves a control efficiency for PM < 2.5 micron: greater than or equal to 20 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-36**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 022 West Sugar Conveying Equipment**Associated Items:** CE 021 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 005 Miscellaneous Particulate Sources (for -008)

SV 027 West Sugar Conveying Equipment

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. The uncontrolled PTE is 4.4 lbs/hr which is lower than the rule limit, which is 34.4 lb/hr; therefore the unit is in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 005 for specific control equipment operating requirements)	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Southern Minnesota Beet Sugar Coop
Permit Number: 12900014 - 008

Subject Item: EU 029 WWTP Flare

Associated Items: SV 034 WWTP Flare

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0110

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-38**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 030 Pebble Lime Bin**Associated Items:** CE 025 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 005 Miscellaneous Particulate Sources (for -008)

SV 040 Pebble Lime Bin

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. The uncontrolled PTE is 0.6 lbs/hr which is lower than the rule limit, which is 25.3 lb/hr; therefore the unit is in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 005 for specific control equipment operating requirements)	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-39**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 031 Gypsum Handling System**Associated Items:** CE 026 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 005 Miscellaneous Particulate Sources (for -008)

SV 041 Gypsum Handling System

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. The uncontrolled PTE is 0.6 lbs/hr which is lower than the rule limit, which is 25.3 lb/hr; therefore the unit is in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 005 for specific control equipment operating requirements)	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-40**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 032 Hammermill**Associated Items:** CE 029 Centrifugal Collector - Medium Efficiency

SV 035 Hammermill

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 10 percent opacity (subp. 3(D)) - discharged from SV035.	Minn. R. 7011.1005, subp. 3(D)
The Permittee shall clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with Reasonable Available Control Technology (RACT).	Minn. R. 7011.1005, subp. 1(A)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item CE 029) for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than 80 percent control efficiency	Minn. R. 7011.1005, subp. 3(E); Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 60 percent control efficiency	Minn. R. 7011.0070, subp. 1; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 60 percent control efficiency	Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-41**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 037 Temporary Boiler (Natural gas-fired)**Associated Items:** SV 046 Temporary Bolier Stack

What to do	Why to do it
<p>Boiler Restrictions: The temporary boilers allowed under this subject are subject to the following restrictions:</p> <p>(1) The rated input capacity of each temporary boiler shall not exceed 100 million Btu/hr;</p> <p>(2) Only one temporary boiler shall be installed and operated at the facility at any one time;</p> <p>(3) Only pipeline natural gas shall be combusted in the units.</p>	Minn. R. 7007.0800, subp. 2
Total Particulate Matter: less than or equal to 0.40 lbs/million Btu heat input using 3-hour Average . The potential to emit from the unit is 0.000745 lb/MMBtu due to equipment design and allowable fuel.	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
Fuel Usage: less than or equal to 790 million cubic feet/year using 12-month Rolling Sum with this total applies to cumulative usage of all the temporary boilers to be used.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of natural gas combusted in the boilers during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings.	40 CFR Section 60.48c(g); Minn. R. 7011.0570
Notification of any physical or operational change which increases emission rate: due 60 days (or as soon as practical) before the change is commenced.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	40 CFR Section 60.12; Minn. R. 7011.0050

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-42**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 038 Boiler No. 5**Associated Items:** MR 008 NOx Monitor

MR 009 O2 Monitor

SV 047 Boiler No. 5

What to do	Why to do it
CONSTRUCTION AUTHORIZATION	hdr
<p>The Permittee is authorized to install and operate EU 038. Approval to construct EU 038 shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time.</p> <p>EU 038 shall be a natural gas-fired boiler rated at no greater than 257.3 MMBtu/hr and equipped with an economizer and an oxygen trim system. The unit shall meet all the requirements of this permit.</p>	40 CFR Section 52.21(r)(2) and Minn. R. 7007.3000
EMISSION LIMITS	hdr
<p>Nitrogen Oxides: less than or equal to 0.10 lbs/million Btu heat input using 30-day Rolling Average for low heat release rate and 0.20 lbs/MMBtu heat input using 30-day Rolling Average for high heat release rate. This standard applies at all times including periods of startup, shutdown, or malfunction.</p>	[Stage 1] 40 CFR Section 60.44b(a), (h), and (i); 40 CFR Section 60.46b(a); Minn. R. 7011.0565
<p>Nitrogen Oxides: less than or equal to 32.40 tons/year using 12-month Rolling Sum to be calculated each month for the previous 12-month period as described later in this permit.</p> <p>For the first 12 months of operation, NOx emissions are limited as determined by the following equation:</p> $E = 6.0 + 2.4 * M$ <p>where: E = limit on NOx emissions in tons since initial startup of EU 038; and M = number of months of operation after startup (i.e., at the end of the first calendar month of operation, M = 1)</p>	[Stage 1] Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
<p>Fuel Usage: less than or equal to 1974 million cubic feet/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.</p> <p>For the first 12 months of operation, the fuel usage is limited as determined by the following equation:</p> $E = 236 + 158 * M$ <p>where: E = limit on fuel usage in million cubic feet since initial startup of EU 038; and M = number of months of operation after startup (i.e., at the end of the first calendar month of operation, M = 1)</p>	[Stage 1] Title I Condition: To avoid classification as a major modification (for PM2.5) under 40 CFR Section 52.21 & Minn. R. 7007.3000
<p>Carbon Dioxide Equivalent: less than or equal to 117800 tons/year using 12-month Rolling Sum to be calculated each day for the previous 12-month period as described later in this permit.</p> <p>For the first 12 months of operation, CO2e emissions are limited as determined by the following equation:</p> $E = 14136 + 9424 * M$ <p>where: E = limit on CO2e in tons since initial startup of EU 038; and M = number of months of operation after startup (i.e., at the end of the first calendar month of operation, M = 1)</p>	[Stage 1] Title I Condition: 40 CFR 52.21(j): BACT and Minn. Rules 7007.3000
Fuel type: Limited to natural gas only, by design.	[Stage 1] Minn. R. 7005.0100, subp. 35a
No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	[Stage 1] 40 CFR Section 60.12; Minn. R. 7011.0050
NOTIFICATIONS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-43**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Notification of any physical or operational change which increases emission rate: due 60 days (or as soon as practical) before the change is commenced.	[Stage 1] 40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 60 days after achieving maximum capacity (production rate), not to exceed 180 days after initial startup, to measure NOx emissions. Use data collected from CEMS for 30 successive operating days. The 30-day average emission rate is calculated as the average of all hourly emission data recorded by the monitoring system during the 30-day test period. [Stage 1]	[Stage 1] 40 CFR Sections 60.8(a) and 60.46b(e); Minn. R. 7017.2020, subp. 1
The Permittee shall submit to the MPCA the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in 40 CFR pt. 60, Appendix B. The Permittee shall submit to the MPCA the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.	[Stage 1] 40 CFR Section 60.49b(b); Minn. R. 7011.0565
RECORD KEEPING AND REPORTING	hdr
Calculation of fuel usage. For each hour of operation, the Permittee shall determine the fuel usage (in standard cubic feet) for that hour. The Permittee shall calculate the daily fuel usage by summing the hourly values for the calendar day. By the 15th day of each month the Permittee shall calculate and record the monthly fuel usage for the previous calendar month. To determined the 12-month rolling sum, the Permittee shall add the fuel usage for the month to the fuel usage for the previous 11 months.	[Stage 1] Title I Condition: 40 CFR 52.21(j); BACT and Minn. Rules 7007.3000
Calculation of emissions of NOx. For each hour of operation, the Permittee shall determine the hourly NOx emissions by multiplying the lb/MMBtu value (determined as required for 40 CFR Part 60 Subpart Db) by the MMBtu value for that hour. The MMBtu value for the hour is calculated by multiplying the fuel usage (in standard cubic feet) for that hour by the appropriate gross heating value (in MMBtu/scf). The default value of 1020 Btu/scf may be used until more accurate data (such as those provided by the natural gas supplier) are available. Daily NOx emissions are calculated by summing the hourly lb/hr values for the calendar day. By the 15th day of each month the Permittee shall calculate and record the emissions of NOx for the previous calendar month. To determined the 12-month rolling sum, the Permittee shall add the NOx emissions for the month to the NOx emissions for the previous 11 months.	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5
Calculation of emissions of CO2e. For each day of operation, the Permittee shall determine the daily CO2, CH4, and N2O emissions by multiplying the daily fuel usage (in MMBtu) by the default emission factors for these pollutants in Tables C-1 and C-2 to Subpart C of 40 CFR Part 98. The Permittee shall calculate the daily CO2e contributions of CO2, CH4, and N2O by multiplying the daily emissions of each pollutant by its Global Warming Potential (found in Table A-1 to Subpart A of 40 CFR Part 98). The Permittee shall calculate the daily CO2e emissions by summing the daily CO2e contributions from CO2, CH4, and N2O. By the 15th day of each month, the Permittee shall calculate and record the emissions of CO2e for the previous calendar month. To determined the 12-month rolling sum, the Permittee shall add the CO2e emissions for the month to the CO2e emissions for the previous 11 months.	[Stage 1] Title I Condition: 40 CFR 52.21(j); BACT and Minn. Rules 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-44**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>Data substitution.</p> <p>Whenever a quality-assured value of a required parameter is unavailable, a substitute data value for the missing parameter shall be used in the calculations. The following data substitutions shall be used when calculating the rolling sums for Fuel Usage, emissions of Nitrogen Oxides, and emissions of Carbon Dioxide Equivalents.</p> <p>(1) For each hour in a period less than or equal to 6 hours in duration in which the fuel consumption data or natural gas concentration data are missing, the Permittee shall substitute the average of the 12 valid operating hours preceding the missing data period and the 12 valid operating hours following the missing data period.</p>	Minn. R. 7007.0800, subp. 4
<p>Data substitution. (continued)</p> <p>(2) For each hour in a period of greater than 6 hours in duration in which fuel flow data are missing, the Permittee shall substitute a value of 257.3 million Btu/hr or the highest measured hourly value during the previous 12 months, whichever is higher.</p> <p>(3) For each hour in a period of greater than 6 hours in duration in which NO_x concentration data are missing, the Permittee shall substitute a value of 0.036 lb/million Btu or the highest measured hourly value during the previous 12 months, whichever is higher.</p> <p>Periods during which EU 038 is not operating are not periods of missing data.</p>	Minn. R. 7007.0800, subp. 4 CONTINUED
Recordkeeping: Maintain a file of all daily reports and records of fuel usage, NO _x emissions, and CO ₂ e for at least five years.	Minn. R. 7007.0800, subp. 5
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b), Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years.	Minn. R. 7007.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f)
INITIAL AND PERIODIC TUNE-UPS	hdr
<p>Initial tune-up.</p> <p>The Permittee shall conduct the initial tune-up within 120 days of initial startup.</p>	[Stage 1] Title I Condition: 40 CFR 52.21(j): BACT and Minn. Rules 7007.3000
<p>Periodic tune-up.</p> <p>The Permittee shall conduct a tune-up of the boiler every five years to demonstrate continuous compliance as specified in paragraphs (1) through (8) below. Each tune-up must be conducted no more than 61 months after the previous tune-up. The Permittee may delay the burner inspection specified in paragraph (1) and inspection of the system controlling the air-to-fuel ratio specified in paragraph (3) until the next scheduled shutdown, but each burner and each system controlling the air-to-fuel ratio shall be inspected at least once every 72 months.</p> <p>The Permittee shall:</p> <p>(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the burner inspection may be delayed until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).</p>	[Stage 1] Title I Condition: 40 CFR 52.21(j): BACT and Minn. Rules 7007.3000
<p>Periodic tune-up. (continued)</p> <p>(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.</p> <p>(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).</p> <p>(4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.</p>	[Stage 1] Title I Condition: 40 CFR 52.21(j): BACT and Minn. Rules 7007.3000 CONTINUED

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-45**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

<p>Periodic tune-up. (continued)</p> <p>(5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.</p> <p>(6) Measure the temperature in the effluent stream downstream of any heat exchangers before and after adjustments are made.</p> <p>(7) Maintain on-site and submit, if requested by the MPCA, a report containing the information in paragraphs (7)(i) through (ii) of this section.</p> <p>(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.</p> <p>(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.</p>	<p>[Stage 1] Title I Condition: 40 CFR 52.21(j): BACT and Minn. Rules 7007.3000 CONTINUED</p>
<p>Periodic tune-up. (continued)</p> <p>(8) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.</p>	<p>[Stage 1] Title I Condition: 40 CFR 52.21(j): BACT and Minn. Rules 7007.3000 CONTINUED</p>
MONITORING REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain, and operate CEMS for measuring NOx and O2 (or CO2) emissions discharged to the atmosphere, and shall record the output of the system.	[Stage 1] 40 CFR Section 60.48b(b)(1); Minn. R. 7011.0565
The CEMS shall be operated and data recorded during all periods of operation of EU 038 except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.	[Stage 1] 40 CFR Section 60.48b(c); Minn. R. 7011.0565
The 1-hour average NOx emission rates measured by the NOx CEMS shall be expressed in lb/MMBtu heat input and shall be used to calculate the 30-day average emission rate. The 1-hour averages shall be calculated using data points required under 40 CFR Section 60.13(h)(2).	[Stage 1] 40 CFR Section 60.48b(d); Minn. R. 7011.0565
When NOx emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 or 7A of Appendix A of 40 CFR part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours of EU 038, in at least 22 out of 30 successive EU 038 operating days.	[Stage 1] 40 CFR Section 60.48b(f); Minn. R. 7011.0565
Following the date the initial performance test is completed or required to be completed (whichever comes first), the Permittee shall determine compliance with the NOx standard on a continuous basis through the use of 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each operating day as the average of all of the hourly NOx emission data for the preceding 30 operating days.	[Stage 1] 40 CFR Section 60.46b(e)(3); Minn. R. 7011.0565
RECORDKEEPING AND REPORTING REQUIREMENTS	hdr
The Permittee shall record and maintain records of the amount of fuel combusted each day.	40 CFR Section 60.49b(d)(1); Minn. R. 7011.0565
At the end of each calendar month, the Permittee shall calculate the 12-month rolling average annual capacity factor for the previous 12 months.	
The Permittee shall maintain records each operating day of the information listed under 40 CFR Section 60.49b(g).	40 CFR Section 60.49b(g); Minn. R. 7011.0565
The Permittee shall submit reports containing the information recorded under 40 CFR Section 60.49b(g).	40 CFR Section 60.49b(i) & Minn. R. 7011.0565
REASONABLE POSSIBILITY MONITORING	hdr
The Permittee shall monitor emissions of CO from the project authorized by Air Emission Permit No. 12900014-008; and shall maintain a record of the annual monitored emissions, in tons per year on a calendar year basis for a period of 5 years following the start of regular operations of EU038.	Title I Condition: 40 CFR Section 52.21(r)(6)(iii) and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-46**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

The Permittee shall submit a report to the MPCA if the annual emissions of CO in tons per year from the project authorized in Air Emission Permit No. 12900014-008 (the installation of EU038), exceed the baseline actual emissions by 100 tons per year, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR Section 52.21(r)(6)(i)(c). Such report shall be submitted to the Administrator within 60 days after the end of such year. The report shall contain the following:

- (a) The name, address and telephone number of the major stationary source;
- (b) The annual emissions as calculated pursuant to 40 CFR Section 52.21(r)(6)(iii); and
- (c) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

Title I Condition: 40 CFR Section 52.21(r)(6)(v) and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-47**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 039 East Sugar Conveying Equipment**Associated Items:** CE 037 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 005 Miscellaneous Particulate Sources (for -008)

SV 042 East Sugar Conveying Equipment

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. The uncontrolled PTE is 0.6 lbs/hr which is lower than the rule limit, which is 25.3 lb/hr; therefore the unit is in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 005 for specific control equipment operating requirements)	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-48**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 040 Bulk Sugar Loadout**Associated Items:** CE 038 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 005 Miscellaneous Particulate Sources (for -008)

SV 043 Bulk Sugar Loadout

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. The uncontrolled PTE is 0.6 lbs/hr which is lower than the rule limit, which is 25.3 lb/hr; therefore the unit is in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 005 for specific control equipment operating requirements)	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-49**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: EU 041 Sugar Packaging**Associated Items:** CE 039 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 005 Miscellaneous Particulate Sources (for -008)

SV 044 Sugar Packaging

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to meet the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. The uncontrolled PTE is 0.6 lbs/hr which is lower than the rule limit, which is 25.3 lb/hr; therefore the unit is in compliance with the rule.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 93 percent control efficiency	[Stage 1] Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Item GP 005 for specific control equipment operating requirements)	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-50**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: CE 001 Electrostatic Precipitator - High Efficiency**Associated Items: EU 001 Boiler No. 1 (Main)**

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
Operation and Maintenance of ESP: The Permittee shall operate and maintain the CE 001 according to the manufacturer's specifications and in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and review by MPCA staff.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the ESP (CE 001) at any time that the process equipment controlled by the ESP (EU 001) is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
Pollution Control Equipment Requirement: The Permittee shall operate the ESP (CE 001) on Boiler No. 1 (EU 001) with no less than 2 fields online. This limit may be amended as specified in Minn. R. 7017.2025 upon completion of each subsequent performance test.	Minn. R. 7007.0800, subp. 14; Minn. R. 7017.2025
MONITORING REQUIREMENTS	hdr
Continuous Monitoring: The Permittee shall continuously, or at a minimum once every 15 minutes, monitor the opacity of the ESP exhaust. [See Subject Item MR 004 for specific COMS operating requirements.]	40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017. 0200
Monitoring Equipment: The necessary monitoring equipment must be installed, in use, and properly maintained, including maintaining the necessary parts for routine repairs of the monitoring equipment, whenever operation of the monitored control equipment is required.	40 CFR Section 64.7(b); Minn. R. 7017.0200
Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer, the Permittee shall inspect the control equipment components. This includes, but is not limited to, components that are not subject to wear or plugging including structural components, housings, and hoods. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the monitored opacity, averaged over any 3-hour period, exceeds 29%; or - the ESP or any of its components are found during the inspections to need repair. Corrective actions shall return operation to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the ESP. The Permittee shall keep a record of the type and date of any corrective action taken for the ESP.	40 CFR Section 64.7(d); Minn. R. 7017.0200
Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing opacity which is considered an excursion, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring changes.	40 CFR Section 64.7(e); Minn. R. 7017.0200
RECORDKEEPING AND REPORTING REQUIREMENTS	hdr
The Permittee shall record the minimum number of fields online in CE001 once each day of operation of EU001. If the minimum number of fields are found to not be online, take corrective action (as outlined in the operation and maintenance plan for the facility) within 24-hours of discovery to return the minimum number of fields online. This is considered an excursion as defined in 40 CFR Section 64.1. Make a record of all corrective actions taken.	Minn. R. 7007.0800, subps. 4, 5, and 14
As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Southern Minnesota Beet Sugar Coop
Permit Number: 12900014 - 008

The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-52**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: CE 011 Venturi Scrubber**Associated Items:** EU 007 Sugar Drier/Cooler

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
Operation and Maintenance of Control Equipment: The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan and the manufacturer's specifications. The Permittee shall keep copies of the O & M Plan available for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the scrubber (CE 011) at any time that the process equipment controlled by the scrubber (EU 007) is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subps. 2 and 14
Pressure Drop: greater than or equal to 6.0 inches of water column and less than or equal to 16 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7011.0075; Minn. R. 7011.0080; Minn. R. 7007.0800, subp. 14; Minn. R. 7017.2025, subp. 3
Liquid Flow Rate: greater than or equal to 500 gallons/minute, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7011.0075; Minn. R. 7011.0080; Minn. R. 7007.0800, subp. 14; Minn. R. 7017.2025, subp. 3
MONITORING REQUIREMENTS	hdr
Daily Inspections: The Permittee shall do the following, once every 24 hours: 1). Read and record the scrubber liquid flow rate; and 2). Read and record the gas pressure drop across the scrubber.	Minn. R. 7007.0800, subps. 2 and 14; 40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Pressure Drop, and liquid Flow Rate. The Permittee shall record the time and date of each pressure drop reading, and liquid flow rate reading, and whether or not the observed value was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Minn. R. 7007.0800, subps. 2 and 14; 40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded water flow rate is outside the required operating range; or - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for the filter.	40 CFR Section 64.7(d); Minn. R. 7017.0200
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop, and water flow rate, as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
Periodic Inspections: At least once per year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
The Permittee shall calibrate the gauges at least once every 12 months and shall maintain a written record of any action resulting from the calibration.	40 CFR Section 64.3; Minn. R. 7017.0200
As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-53**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change.	40 CFR Section 64.7(e); Minn. R. 7017.0200
The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-54**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: CE 029 Centrifugal Collector - Medium Efficiency**Associated Items:** EU 032 Hammermill

What to do	Why to do it
OPERATING REQUIREMENTS	hdr
The Permittee shall operate and maintain the cyclone in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Pressure Drop: greater than or equal to 1.5 inches of water column and less than or equal to 10 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7011.0075, Minn. R. 7011.0080, Minn. R. 7007.0800, subp. 2
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored cyclone is in operation.	Minn. R. 7007.0800, subp. 4
The Permittee shall calibrate the pressure gauge at least once every calendar year and shall maintain a written record of any action resulting from the calibration.	Minn. R. 7007.0800, subps. 2, 4 and 14
MONITORING AND RECORDKEEPING REQUIREMENTS	hdr
Daily Inspections: The Permittee shall do the following, once every 24 hours: Read and record the gas pressure drop across the cyclone.	Minn. R. 7007.0800, subps. 4 and 5
Monitoring of Pollution Control Equipment: The Permittee shall monitor and record the gas pressure drop across the cyclone each operating day. If the monitored parameters are found to be outside the ranges in this permit, take corrective action (as outlined in the O & M plan for the facility) within 24-hours of discovery to restore the parameter(s) to the proper range. Make a record of all corrective actions taken.	Minn. R. 7007.0800, subps. 4, 5 and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored cyclone is in operation.	Minn. R. 7007.0800, subps. 4, and 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the cyclone or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for each control device.	Minn. R. 7007.0800, subps. 4, 5 and 14
Periodic Inspections: At least once per year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subps. 4, 5 and 14
Annual Calibration: The Permittee shall calibrate the pressure gauge at least once every calendar year and shall maintain a written record of any action resulting from the calibration.	Minn. R. 7007.0800, subps. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-55

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: CE 030 Centrifugal Collector - High Efficiency**Associated Items:** EU 013 Lime Kiln A

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the cyclone in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the cyclone at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
Visible Emissions: The Permittee shall check the cyclone stack (SV 018) for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subps. 2 and 14
MONITORING REQUIREMENTS	hdr
Daily inspections: The Permittee shall do the following, once every 24 hours. Inspect the cyclone for any visible emissions during daylight hours.	40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed or - the cyclone or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for the cyclone.	40 CFR Section 64.7(d); Minn. R. 7017.0200
RECORDKEEPING AND REPORTING REQUIREMENTS	hdr
As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200
Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.	40 CFR Section 64.3; Minn. R. 7017.0200
The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-56**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: CE 031 Centrifugal Collector - High Efficiency**Associated Items:** EU 014 Lime Kiln B

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the cyclone in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the cyclone at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
Visible Emissions: The Permittee shall check the cyclone stack (SV 019) for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subps. 2 and 14
MONITORING REQUIREMENTS	hdr
Daily inspections: The Permittee shall do the following, once every 24 hours. Inspect the cyclone for any visible emissions during daylight hours.	40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed or - the cyclone or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for the cyclone.	40 CFR Section 64.7(d); Minn. R. 7017.0200
RECORDKEEPING AND REPORTING REQUIREMENTS	hdr
As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200
Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.	40 CFR Section 64.3; Minn. R. 7017.0200
The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-57**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: CE 032 Spray Tower**Associated Items:** EU 013 Lime Kiln A

What to do	Why to do it
The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the scrubber (CE 032) at any time that the process equipment controlled by the scrubber (EU 013) is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
Water flow rate: greater than or equal to 30 gallons/minute and less than or equal to 75 gallons/minute, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7007.0800, subps. 2 and 14
MONITORING AND RECORDKEEPING	hdr
Daily Inspections: The Permittee shall do the following, once every 24 hours: Read and record the scrubber water flow rate.	40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Water Flow Rate: The Permittee shall record the time and date of each water flow rate reading, and whether or not the observed value was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded water flow rate is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the water flow rate and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for the filter.	40 CFR Section 64.7(d); Minn. R. 7017.0200
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording water flow as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change.	40 CFR Section 64.7(e); Minn. R. 7017.0200
As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200
The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-58**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: CE 033 Spray Tower**Associated Items:** EU 014 Lime Kiln B

What to do	Why to do it
The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the scrubber (CE 033) at any time that the process equipment controlled by the scrubber (EU 014) is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14
Water flow rate: greater than or equal to 30 gallons/minute and less than or equal to 75 gallons/minute, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7007.0800, subps. 2 and 14
MONITORING AND RECORDKEEPING	hdr
Daily Inspections: The Permittee shall do the following, once every 24 hours: Read and record the scrubber water flow rate.	40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Water Flow Rate: The Permittee shall record the time and date of each water flow rate reading, and whether or not the observed value was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	40 CFR Section 64.3; Minn. R. 7017.0200
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded water flow rate is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the water flow rate, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for the filter.	40 CFR Section 64.7(d); Minn. R. 7017.0200
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change.	40 CFR Section 64.7(e); Minn. R. 7017.0200
As required by 40 CFR Section 64.9(a)(2), for the Semi-Annual Deviations Report listed in Table B of this permit and/or the Notification of Deviations Endangering Human Health and the Environment listed earlier in Table A of this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents.	40 CFR Section 64.9(a)(2); Minn. R. 7017.0200
The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-59**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: MR 004 Opacity Monitor**Associated Items:** CM 001 Boiler 1: 20% Opacity, EU001, 6-min ave.

EU 001 Boiler No. 1 (Main)

What to do	Why to do it
Continuous Operation: COMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A COMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	Minn. R. 7017.1090, subp. 1; 40 CFR Section 60.13(e); 40 CFR Section 64.7(c); Minn. R. 7017.0200
All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data for each successive 6-minute period.	Minn. R. 7017.1200, subp. 1, 2 & 3; 40 CFR Section 60.13(e)(1); 40 CFR Section 60.13(h)
Reduction of Monitoring Data: The Permittee must reduce the monitoring data from the COMS as specified in 49 CFR Section 60.139(h).	40 CFR Section 60.13(h)
QA Plan Required: Develop and implement a written quality assurance plan which covers each COMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.	Minn. R. 7017.1210, subp. 1; 40 CFR Section 64.7(b); Minn. R. 7017.0200
COMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR pt. 60, Appendix B and shall operate, calibrate, and maintain each COMS according to the QA/QC procedures in Minn. R. 7017.1210. The span value of the COMS shall be between 60 and 80 percent	40 CFR Section 60.13(a); Minn. R. 7017.1210; 40 CFR Section 64.7(b); Minn. R. 7017.0200
COMS Daily Calibration Drift Check: The Permittee must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. The acceptable range is as defined in 40 CFR pt. 60, Appendix B, PS-1. For COMS without automatic zero adjustments: The optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments. For COMS with automatic zero adjustments: The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition as specified in 40 CFR 60.13(d)(2).	Minn. R. 7017.1210, subp. 2; 40 CFR Section 60.13(d)(l) regarding COMS and 60.13(d)(2); 40 CFR Section 64.7(b); Minn. R. 7017.0200
COMS Calibration Error Audit: due before end of each calendar half-year starting 04/01/1998. Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart. Conduct audits in accordance with Minn. R. 7017.1210, subp. 3.	Minn. R. 7017.1210, subp. 3; 40 CFR Section 64.7(b); Minn. R. 7017.0200
Attenuator Calibration: The Permittee shall have an independent testing company conduct calibrations of each of the neutral density filters used in the calibration error audit according to the procedure in Code of Federal Regulations, Title 40, Part 60, Appendix B, Section 7.1.3.1 within the time frame of opacity stability guaranteed by the attenuator manufacturer. The manufacturer's guarantee of stability shall be on site available for inspection.	Minn. R. 7017.1210, subp. 3; 40 CFR Section 64.7(b); Minn. R. 7017.0200
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-60**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: MR 006 SO2 Monitor**Associated Items:** CM 002 Boiler 1: 0.80 lbs SO2/mmBtu (liquid), 1.2 lbs SO2/mmBtu (solid), EU001, 3-hr ave.

EU 001 Boiler No. 1 (Main)

What to do	Why to do it
CEMS Monitor Design: Each CEMS shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period.	40 CFR Section 60.13(e)(2)
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.	40 CFR Section 60.13(e), Minn. R. 7017.1090, subp. 1
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR pt. 60, Appendix F, Section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR pt. 60, App. F; section 3
CEMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR pt. 60, Appendix B and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended and maintain a written QA/QC program available in a form suitable for inspection.	40 CFR pt. 60, Appendix F; 40 CFR Section 60.13(a)
CEMS Daily Calibration Drift Check: Permittees must automatically check the zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily. The zero and span must, at a minimum, be adjusted whenever the drift exceeds two times the limit specified in 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR pt. 60, Appendix F, section 4.1; 40 CFR Section 60.13(d)(1) regarding CEMS; Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEMS certification test, but not in more than three calendar quarters per calendar year. A CGA is not required during any calendar quarter in which a RATA was performed.	40 CFR pt. 60, Appendix F, section 5.1.2; Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F. The RATA shall be conducted during a calendar quarter in which a CGA is not performed.	40 CFR pt. 60, Appendix F, section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	Minn. R. 7017.1180, subp. 2
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130; 40 CFR Section 60.7(f)
Monitoring Data: Reduce all data to 1-hour averages, in accordance with 40 CFR Section 60.13(h). 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	40 CFR Section 60.13(h) regarding continuous monitoring systems other than COMS.

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-61**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: MR 007 NOx Monitor**Associated Items:** CM 004 Boiler 1: 0.20 lbs NOx/mmBtu (gaseous); 0.30 lbs NOx/mmBtu (liquid), 0.70 lbs NOx/mmBtu (solid), EU001, 3
EU 001 Boiler No. 1 (Main)

What to do	Why to do it
CEMS Monitor Design: Each CEMS shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period.	40 CFR Section 60.13(e)(2)
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.	40 CFR Section 60.13(e), Minn. R. 7017.1090, subp. 1
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR pt. 60, Appendix F, Section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR pt. 60, App. F; section 3
CEMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR pt. 60, Appendix B and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended and maintain a written QA/QC program available in a form suitable for inspection.	40 CFR pt. 60, Appendix F; 40 CFR Section 60.13(a)
CEMS Daily Calibration Drift Check: Permittees must automatically check the zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily. The zero and span must, at a minimum, be adjusted whenever the drift exceeds two times the limit specified in 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR pt. 60, Appendix F, section 4.1; 40 CFR Section 60.13(d)(1) regarding CEMS; Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEMS certification test, but not in more than three calendar quarters per calendar year. A CGA is not required during any calendar quarter in which a RATA was performed.	40 CFR pt. 60, Appendix F, section 5.1.2; Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F. The RATA shall be conducted during a calendar quarter in which a CGA is not performed.	40 CFR pt. 60, Appendix F, section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA)) .	Minn. R. 7017.1180, subp. 2
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130; 40 CFR Section 60.7(f)
Monitoring Data: Reduce all data to 1-hour averages, in accordance with 40 CFR Section 60.13(h). 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	40 CFR Section 60.13(h) regarding continuous monitoring systems other than COMS.

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-62**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: MR 008 NOx Monitor**Associated Items:** CM 005 Boiler No. 5: 0.10 or 0.20 lb NOx/mmBtu; 30-day average

EU 038 Boiler No. 5

What to do	Why to do it
The CEMS/COMS requirements listed below outline the typical standards of 40 CFR pt. 60 when combined with Minn. R. Additional monitoring requirements may also apply to the Facility based on this combination of standards and it is the responsibility of the Facility to meet all applicable requirements.	hdr
CEMS Monitor Design: Each CEMS shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period.	[Stage 1] 40 CFR Section 60.13(e)(2)
Installation Notification: due 60 days before CEMS installation. The notification shall include plans and drawings of the system.	[Stage 1] Minn. R. 7017.1040, subp. 1
CEMS Certification Test: due 120 days after the first calendar quarter following CEMS Installation. (This requirement is as stringent as that of Minn. R. 7017.1050, subp. 1 requiring testing within 90 days after the due date of the first excess emissions report required for the CEMS or COMS.)	40 CFR Section 60.13(b); Minn. R. 7017.1050, subp. 1
CEMS Certification Test Plan: due 30 days before CEMS Certification Test CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test CEMS Certification Test Report: due 45 days after CEMS Certification Test CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.1120, subp. 2	40 CFR Section 60.7(a)(5); Minn. R. 7017.1060, subp. 1-3; Minn. R. 7017.1080, subp. 1-4
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.	[Stage 1] 40 CFR Section 60.13(e), Minn. R. 7017.1090, subp. 1
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR pt. 60, Appendix F, Section 3.	40 CFR pt. 60, Appendix F; Section 3; Minn. R. 7017.1170, subp. 2
CEMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR pt. 60, Appendix B and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended and maintain a written QA/QC program available in a form suitable for inspection.	40 CFR pt. 60, Appendix F; 40 CFR Section 60.13(a)
CEMS Daily Calibration Drift Check: Permittees must automatically check the zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily. The zero and span must, at a minimum, be adjusted whenever the drift exceeds two times the limit specified in 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR pt. 60, Appendix F, section 4.1; 40 CFR Section 60.13(d)(1) regarding CEMS; Minn. R. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): Due before the end of each three of four calendar quarters following Permit Issuance but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. (This refers to Air Emission Permit No. 12900014-008.)	40 CFR pt. 60, Appendix F, section 5.1.2; Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F. The RATA shall be conducted during a calendar quarter in which a CGA is not performed.	40 CFR pt. 60, Appendix F, section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	Minn. R. 7017.1180, subp. 2
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130; 40 CFR Section 60.7(f)
Monitoring Data: Reduce all data to 1-hour averages, in accordance with 40 CFR Section 60.13(h). 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	[Stage 1] 40 CFR Section 60.13(h) regarding continuous monitoring systems other than COMS.

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-63**

04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

Subject Item: MR 009 O2 Monitor**Associated Items:** CM 005 Boiler No. 5: 0.10 or 0.20 lb NOx/mmBtu; 30-day average

CM 006

EU 038 Boiler No. 5

What to do	Why to do it
The CEMS/COMS requirements listed below outline the typical standards of 40 CFR pt. 60 when combined with Minn. R. Additional monitoring requirements may also apply to the Facility based on this combination of standards and it is the responsibility of the Facility to meet all applicable requirements.	hdr
CEMS Monitor Design: Each CEMS shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period.	[Stage 1] 40 CFR Section 60.13(e)(2)
Installation Notification: due 60 days before CEMS installation. The notification shall include plans and drawings of the system.	[Stage 1] Minn. R. 7017.1040, subp. 1
CEMS Certification Test: due 120 days after the first calendar quarter following CEMS Installation. (This requirement is as stringent as that of Minn. R. 7017.1050, subp. 1 requiring testing within 90 days after the due date of the first excess emissions report required for the CEMS or COMS.)	40 CFR Section 60.13(b); Minn. R. 7017.1050, subp. 1
CEMS Certification Test Plan: due 30 days before CEMS Certification Test CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test CEMS Certification Test Report: due 45 days after CEMS Certification Test CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.1120, subp. 2	40 CFR Section 60.7(a)(5); Minn. R. 7017.1060, subp. 1-3; Minn. R. 7017.1080, subp. 1-4
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.	[Stage 1] 40 CFR Section 60.13(e), Minn. R. 7017.1090, subp. 1
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR pt. 60, Appendix F, Section 3.	40 CFR pt. 60, Appendix F; Section 3; Minn. R. 7017.1170, subp. 2
CEMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR pt. 60, Appendix B and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended and maintain a written QA/QC program available in a form suitable for inspection.	40 CFR pt. 60, Appendix F; 40 CFR Section 60.13(a)
CEMS Daily Calibration Drift Check: Permittees must automatically check the zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily. The zero and span must, at a minimum, be adjusted whenever the drift exceeds two times the limit specified in 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR pt. 60, Appendix F, section 4.1; 40 CFR Section 60.13(d)(1) regarding CEMS; Minn. R. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): Due before the end of each three of four calendar quarters following Permit Issuance but no more than three quarters in succession. A CGA is not required during any calendar quarter in which a RATA was performed. (This refers to Air Emission Permit No. 12900014-008.)	40 CFR pt. 60, Appendix F, section 5.1.2; Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F. The RATA shall be conducted during a calendar quarter in which a CGA is not performed.	40 CFR pt. 60, Appendix F, section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	Minn. R. 7017.1180, subp. 2
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130; 40 CFR Section 60.7(f)
Monitoring Data: Reduce all data to 1-hour averages, in accordance with 40 CFR Section 60.13(h). 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	[Stage 1] 40 CFR Section 60.13(h) regarding continuous monitoring systems other than COMS.

TABLE B: SUBMITTALS**B-1** 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop
Permit Number: 12900014 - 008

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Chief Air Enforcement
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**B-2** 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of compliance status	due before 07/19/2012 for the boiler tune-up requirements.	EU003
Notification of compliance status	due before 07/19/2014 for the energy assessment requirement.	EU001, EU003
Notification of compliance status	due before 07/21/2014 to achieve compliance with emission limits.	EU001
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU037
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup Include all of the information required under 40 CFR Section 60.49b(a). [Stage 1]	EU038
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of each unit and the date construction of each unit began. [Stage 1]	EU038
Notification of the Date Construction Began	due 30 days after Start Of Construction. This requirement applies if the temporary boiler is subject to the requirements of 40 CFR pt. 60, subp. Dc. Submit the name and number of each unit and the date construction of each unit began.	EU037
Notification	due 30 days before CEM Certification Test of the anticipated date for demonstrating the continuous monitoring system performance (in accordance with 40 CFR 60.13).	EU038
Subpart JJJJJ Initial Notification	due before 09/17/2011	EU001, EU003

TABLE B: RECURRENT SUBMITTALS**B-3** 04/02/13

Facility Name: Southern Minnesota Beet Sugar Coop

Permit Number: 12900014 - 008

What to send	When to send	Portion of Facility Affected
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar quarter following COMS Calibration Error Audit was completed.	MR004
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed	MR006, MR007
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a CGA was conducted.	MR008, MR009
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following CEM Certification Test (Submit Deviations Reporting From DRF-1 as amended.) The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard (i.e., during startup, shutdown, and malfunction). [Stage 1]	EU038
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Initial Startup of the Monitor. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	MR008, MR009
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter starting 04/01/1998 The EER shall indicate all periods of monitor bypass and all periods of exceedances of opacity limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	Total Facility
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter starting 04/01/1998 The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	MR007
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following CEMS Relative Accuracy Test Audit (RATA) was conducted	MR006, MR007
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a RATA was conducted. (This refers to Air Emission Permit No. 12900014-008.)	MR008, MR009
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 04/01/1998 . The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 04/01/1998 (for the previous calendar year). The report covers all deviations experienced during the calendar year. To be submitted on a form approved by the Commissioner to the Commissioner and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604.	Total Facility

APPENDIX B Quality Assurance/Quality Control Plan
Facility Name: Southern Minnesota Beet Sugar Coop
Permit Number: 12900014-007

***Quality Assurance/Quality Control Plan
Continuous Emission and Opacity Monitoring***

***Southern Minnesota Beet Sugar Cooperative
Renville, Minnesota***

February 1998

**Southern Minnesota Beet Sugar Cooperative
Continuous Emission and Opacity Monitoring
Quality Assurance/Quality Control Plan**

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Appendix

I. Introduction

A. Facility

The Southern Minnesota Beet Sugar Cooperative (SMBSC) facility in Renville, Minnesota, processes sugar from sugar beets. The largest combustion source at the facility is Boiler No. 1. The boiler is permitted to burn sub-bituminous coal, residual fuel oil and distillate fuel oil. Emissions are controlled by a high-efficiency electrostatic precipitator. Boiler No. 1 is subject to 40 CFR Part 60 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971. As required by the New Source Performance Standard (NSPS), a continuous emission monitoring system (CEMS) and continuous opacity monitoring system (COMS) are installed on the effluent gas stream. The CEMS and COMS measure and record pollutant emissions and opacity for comparison with emission limits contained in Draft Air Emission Permit No. 12900014-008.

B. Continuous Monitoring System

The continuous emission monitoring CEMS measures sulfur dioxide (SO_2), nitric oxide (NO), and oxygen (O_2) levels in the boiler exhaust gas. SO_2 and NO concentrations are measured using a Model SM8160 process gas analyzer. The instrument utilizes an ultraviolet analytical technique. A continuous relationship between NO and NO_x levels in the exhaust gas is assumed, so that the NO_x concentration can be calculated from the measured NO concentration. Oxygen content is determined by a Model LS420 In-Situ Zirconia Oxygen Analyzer which utilizes a zirconium oxide detector. The COMS measures percent opacity using a United Sciences, Inc. (USI) Model 500C compliance opacity monitor.

The span value for both the SO_2 and NO_x analyzers is 750 ppm. The span value for the oxygen analyzer is 25 percent. The opacity monitor span value is 80 percent.

The CEMS and COMS is operated by a Monitor Labs Model LS710 universal control unit. The control unit monitors the CEMS and COMS system operation and calibration checks for all analyzers. The

CEMS and COMS information output is controlled by a Monitor Labs Model DR9075 data acquisition and handling system.

C. Emission Limits

Pollutant	Limit for Coal	Limit for No. 6 Fuel Oil
Opacity ¹	20 percent	
Sulfur Dioxide (SO ₂)	1.2 lb/MMBtu	0.8 lb/MMBtu
Nitric Oxides (NO _x)	0.7 lb/MMBtu	0.3 lb/MMBtu

¹A maximum of 27 percent opacity is allowed for 6 minutes in any 60-minute period.

II. CEMS and COMS Calculations and Reporting

A. Data Calculations

Opacity data is reduced to 6-minute averages. Opacity averages are calculated from all equally spaced consecutive 10-second (or shorter) data points in the 6-minute averaging period. The six-minute averages are stored by the data acquisition system.

NO_x and SO₂ data is reduced to 1-hour averaging periods. Each one-hour average is calculated from four 15-minute averages. Three hour averages are calculated from three contiguous one-hour averages. Measured pollutant concentrations for SO₂ and NO_x are converted to the units of the standard (lb/MMBtu) by the following equation:

$$E = [C_w F_w 20.9] / [20.9(1 - B_{wa}) - \% O_{2w}]$$

where:

E is the pollutant emission rate in lbs/MMBtu.

C_w is the pollutant concentration in PPM (SO₂ or NO_x).

F_w is the wet F factor. A value of 10,640 is used for sub-bituminous coal and a value of 10,320 is used for residual oil.

B_{wa} is the moisture fraction of ambient air.

%O_{2w} is the percent oxygen on a wet basis.

Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments is not used in the computed data averages.

B. Excess Emissions and Downtime Reports

Opacity excess emissions are defined as any 6-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one 6-minute average per hour of up to 27 percent opacity need not be reported.

Excess emissions for sulfur dioxide and nitrogen oxides are defined as any 3-hour period during which the average emissions (arithmetic average of three contiguous 1-hour periods) exceed the applicable standards (SO₂—1.2 and 0.8 lb/MMBtu; NO_x—0.7 and 0.3 lb/MMBtu for coal and residual oil respectively).

The following will be documented and reported for all CEM exceedances. This information will be stored by the data acquisition system (DAS):

- Start time and date
- Level of exceedance
- Reason
- Corrective action
- Stop time and date

Downtime is any time when a CEMS or COMS is inoperative and not collecting data. Downtime is classified as system breakdowns, maintenance and adjustments except for zero and span checks.

CEMS and COMS downtime is tabulated by the DAS and it generates a report for submittal to MPCA.

The following parameters are required to be documented and reported for all CEMS and COMS downtime:

- Start time and date
- Reason
- Corrective action
- Stop time and date

Excess emissions and downtime reports (EERs) will be submitted within 30 days after the end of each calendar quarter following permit issuance. The EER will indicate all periods of monitor bypass and all periods of exceedance of the opacity, sulfur dioxide or nitrogen oxides limits, including exceedances allowed by an applicable standard (i.e., during startup, shutdown, and malfunctions).

C. Record Keeping

Copies of all reports required to be submitted to MPCA will be kept at the facility for a minimum of five years. Also, copies of original CEMS and COMS data in electronic format and records of calibration and maintenance performed on the CEMS and COMS will be kept at the facility for five years.

III. Operating Procedures

A. Response to Exceedance

The following is a step-by-step procedure to be followed by the operators in response to any exceedance of permitted emission levels for SO₂ and NO_x:

Step 1: Notify Shift Superintendent

Step 2: Notify Instrumentation

Step 3: Instrumentation will make any necessary repairs or the operators, along with the Shift Superintendent, will make any necessary operational adjustments to bring emissions into compliance (1.2 lb/MMBtu or less SO₂; 0.7 lb/MMBtu or less NO_x when burning coal)

Step 4: If necessary, consult Babcock & Wilcox

Step 5: If necessary, contact Campbell-Sevey for maintenance issue

Step 6: Document the following information utilizing the DAS:

- Date and time exceedance started
- Level of exceedance
- Cause of exceedance
- Corrective action taken
- Date and time exceedance stopped

If an exceedance of the opacity standard occurs (greater than 20%), the operators will respond as shown in the Opacity Exceedance Action Plan included as Attachment 1.

B. Response to Downtime

In the instance where a continuous monitor is down (opacity, SO₂, NO_x, oxygen), immediate action will be required by the Control Room Operators. The following is a step-by-step procedure to be followed by the operators:

Step 1: Notify Shift Superintendent

Step 2: Notify Instrumentation

Step 3: Instrumentation will make any necessary repairs.

Step 4: In unable to repair, contact Campbell-Sevey.

Step 5: Document the following information utilizing the DAS:

- Date and time downtime started
- Cause of downtime
- Corrective action taken
- Date and time downtime stopped

NOTE: Immediate Response is required

Minnesota Pollution Control Agency Notification

SMBSC is required to notify the Commissioner immediately of:

- A breakdown of more than one hour duration of the control equipment on the Emission Unit, and
- A breakdown of the Emission Unit if the breakdown results in an increase in emissions.
- Commissioner will be notified when breakdown is over.

SMBSC is required to notify the Commissioner at least 24 hours in advance of:

- A shutdown of the control equipment.
- A shutdown of the Emission Unit if the shutdown would cause an increase in emissions.
- Commissioner will be notified when shutdown is over.

NOTE: In any shutdown or breakdown, the owner or operator shall immediately take all practical steps to modify operations to reduce the emission of air contaminants.

C. Daily Calibration

All Continuous monitors are required to perform, at a minimum, a daily calibration. The following are the calibration settings for the Opacity, SO₂, NO_x, and Oxygen Monitors at SMBSC:

- Opacity Monitor calibrates once every 8 hours.
- Zero setting is 0 percent and upscale is 33 percent.
- Required to be within ± 2 percent of the low and high settings.

- SO₂ Monitor calibrates once every 24 hours.
- Zero setting is 0 ppm and upscale is 430 ppm.
- Required to be within ± 37.5 ppm of the low and high settings by.

- NO_x Monitor calibrates once every 24 hours.
- Zero setting is 0 ppm and upscale is 430 ppm.
- Required to be within ± 37.5 ppm of the low and high settings.

- Oxygen Monitor calibrates once every 24 hours.
- Zero setting is 2.009 percent and upscale is 20.95 percent.
- Required to be within ± 0.5 percent of the low and high setting.

The daily zero and span drift of the calibration will be determined and documented once daily by the DAS. The Utilities Area Manager will review the calibration recorded by the DAS to determine its accuracy. If the zero and span readings are not within the above-listed required ranges, Instrumentation must be notified immediately. Instrumentation must, at a minimum, perform an adjustment. If necessary, instrumentation will contact Campbell-Sevey for service.

NOTE: The zero setting on the Oxygen CEM Monitor is the concentration of gas on the gas bottle. If a bottle is replaced, check the gas concentration and adjust the zero setting accordingly.

D. Periodic Audits

Campbell-Sevey will perform two (2) EPA Cylinder Gas Audits (CGA) per year on the NO_x, SO₂ and Oxygen CEMS. The draft permit requires that the CGA's be performed once each calendar half-year, not less than three months or more than eight months apart. The CGA's will be performed in accordance with 40 CFR Part 60 Appendix F section 5.1.2.

NOTE: CGA results are due to MPCA within 30 days of the end of each calendar half-year following permit issuance.

COMS calibration error audits will be performed before the end of each half-year following permit issuance following the procedure described in 40 CFR Part 60, Appendix B, Performance Specification 1, section 7.1.4. Calibration error audits summaries are required to be submitted within 30 days after the end of each calendar half-year following permit issuance.

A CEMS Relative Accuracy Test Audit (RATA) will be performed before the end of each calendar year following permit issuance. The MPCA will be notified at least 30 days prior to the performance of each RATA. If the relative accuracy is 15 percent or less, the next CEMS RATA is not due for 24 months. CEMS RATA results will be submitted within 30 days after the end of each calendar quarter in which the CEMS RATA was conducted.

E. Maintenance

Currently, three (3) instrumentation personnel are on site to perform normal on-site maintenance of all continuous monitors. The normal on-site maintenance consists of:

- Calibration Checks
- Zero and Span Adjustments
- Cleaning or Replacing

- Filters
- Lamps
- Fuses
- Gas Bottles (use only certified gas if available)

Instrumentation personnel are responsible for maintaining an on-site supply of parts for immediate maintenance of breakdowns.

SMBSC has a Preventive Maintenance Agreement with Campbell-Sevey for three (3) yearly site visits. These visits are scheduled for August, December, and March.

Manufacturers' Suggested Spare Parts List

It shall be the responsibility of the Electrical & Control Systems Manager to maintain an inventory of the manufacturer's suggested spare parts list as per Tables 1 through 3.

Table 1. SM8160 SO₂/NO

Description	Part Number	Quantity
Cartridge, Desiccant	16000053	1
Fuse, Thermal	53000093-2	2
Lamp Assembly, Ultraviolet	81000161-1	1
Printed Circuit Assembly, Serial Data Acquisition	81750012SP-1	1
Printed Circuit Assembly, Utility/Power Supply	8170015-2	1
Beam Splitter Assembly	81000160-2	1
Controller Assembly, Temperature	81000623-3	1
Dynode Chain Assembly	81000883-2	1
Printed Circuit Assembly, Transceiver	81750045-2	1
Scanner Assembly	81000164-4	2
Filter Assembly, Ceramic, 15 to 20 cm Cavity	81000935-1	1
Filter Assembly, Ceramic, 1.25 to 100 cm Cavity	28000262	1
Filter Assembly, Ceramic, 36 cm Cavity	80340018-1	1
Filter Assembly, Ceramic, 75 cm Cavity	81001130	1
Gasket, Ceramic Filter (except 36 and 75 cm Cavity)	81000205	1
Gasket, Ceramic Filter, 75 cm Cavity	81001137	1
Gasket, Ceramic Filter, 36 cm Cavity	81001176	1
Gasket, Probe Mount	81750564	1
Ring, Grafoil (except 36 cm Cavity)	81000790-2	4
Seal, Grafoil (36 cm Cavity only)	81000790-3	1
Cloth, Polishing, Lint-Free (for transceiver lens)	25000393	1

Table 2. USI 500C Opacity Monitor

Description	Part Number	Quantity
Dessicator, Optical Head Assembly	997788	1
Lamp, Aperture Assembly ¹	601-0900- ^{1,2}	1
Fuses	527354	1
Cal Wheel Belt Drive	528558	1
Power Cord	980112	1
Dessicator, Retroreflector Assembly	997789	1
Catch	528554	1
Filter	820202	1
Blowers Motor	980111	1
Hose	980534	1
Hose Clamps	990744	1
Purge Switch Subassembly	1001-0700-01	1

¹ Replacement requires complete recalibration of the system

² Consult site specification sheets (Appendix J) for correct dash number aperture size for specific monitor serial number.

Table 3. LS420 In-Situ Zirconia Oxygen Analyzer

Description	Part Number	Quantity
Cell Assembly	94200022	1
Filter Assembly		1

see permit file for the hard copy of the “Opacity Exceedance Action Flow Chart” which could not be stored electronically.

APPENDIX C Insignificant Activities and Applicable Requirements

Facility Name: Southern Minnesota Beet Sugar Cooperative

Permit Number: 12900014-008

Insignificant Activities and Applicable Requirements

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Likely Applicable Requirement
3(E)	Storage tanks: 2. non-hazardous air pollutant VOC storage tanks with a combined total tankage capacity of not more than 10,000 gallons of non-hazardous air pollutant VOCs and with a vapor pressure of not more than 1.0 psia at 60 degrees Fahrenheit. <ul style="list-style-type: none"> Fuel Oil Storage Tank (1,100 gallons) One (1) gasoline storage tank at 5,000 gallons 	Minn. R. 7011.1505
3(G)	Emissions from laboratory..... <i>Analytical laboratory</i>	Minn. R. 7011.0710/0715
3(H)	Miscellaneous: <ul style="list-style-type: none"> Equipment used for hydraulic or hydrostatic testing Brazing, soldering, or welding 	Minn. R. 7011.0710/0715 Minn. R. 7011.0710/0715
3(I)	Individual emission units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than : 1. 4,000 lbs/year of carbon monoxide; 2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC, and ozone; and 3. 1,000 tons/yr of CO ₂ e. <ul style="list-style-type: none"> Wasterwater pond TK 001: One residual oil storage tank 	Minn. R. 7011.0710/0715 Minn. R. 7011.1505
3(J)	Fugitive Emissions from unpaved roads and parking lots	Minn. R. 7011.0105/0110
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities..... <ul style="list-style-type: none"> Spray Paint Equipment 	Minn. R. 7011.0710/0715

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Likely Applicable Requirement
4	<p>Individual emissions units at a stationary source, each of which has:</p> <p>A. Potential emissions of 5.7 pounds per hour or actual emissions of two tons per year of carbon monoxide;</p> <p>B. Potential emissions of 2.28 pounds per hour or actual emissions of one ton per year for particulate matter, particulate matter less than ten microns, nitrogen oxide, sulfur dioxide, and VOCs;</p> <p>C. For hazardous air pollutants, emissions units with... and</p> <p>D. potential emissions up to 10,000 tons/yr or actual emissions up to 1,000 tons/yr CO₂e.</p> <p><i>The following PM/PM₁₀ sources have potential controlled emissions less than 1 tpy of PM/PM₁₀, and so it follows that actual emissions are less than 1 tpy for each :</i></p> <ul style="list-style-type: none"> <i>Eight (8) Natural Gas Space Heaters and Eleven (11) Propane Space Heaters</i> <i>Ten (10) Furnaces and Three (3) fuel burning equipment</i> <i>WWTP Water Heater (EU 036)</i> <i>Bulk Sugar Control Vacuum System (EU 024)</i> <i>Lime Dispensing Dust Collector (EU 026)</i> <i>Sugar Warehouse Melter (EU 027)</i> 	<p>Minn. R. 7011.0510/0515</p> <p>Minn. R. 7011.0510/0515</p> <p>Minn. R. 7011.0510/0515</p> <p>Minn. R. 7011.0510/0515</p> <p>Minn. R. 7011.0510/0515</p> <p>Minn. R. 7011.0510/0515</p>

Conditionally Insignificant Activities

Minn. R. 7008.4110	<p>Emissions from equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM₁₀) inside a building, provided that emissions from the equipment are:</p> <p>a). filtered through an air cleaning system; and</p> <p>b). vented inside of the building 100% of the time.</p> <ul style="list-style-type: none"> <i>Pearlite Loading Station</i> <i>Diatomaceous Earth Loading Stations (2)</i> 	<p>Minn. R. 7011.0710/0715</p> <p>Minn. R. 7011.0710/0715</p>
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