

**AIR EMISSION PERMIT NO. 11900002- 005**

**IS ISSUED TO**

American Crystal Sugar Company  
for  
**AMERICAN CRYSTAL SUGAR - EAST GRAND FORKS**  
1020 Business Highway 2  
East Grand Forks, Polk County, MN 56721

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.

This permit amendment supersedes Air Emission Permit No. 11900002-004 and authorizes the Permittee to operate and modify 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 SIP under 40 CFR § 52.1220 and as such as are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

**Permit Type:** Federal; Pt 70/Major for NSR

**Authorization to Construct and Operate Issuance Date:** September 10, 2009

**Final Permit Issuance Date:** September 22, 2009

**Expiration:** September 22, 2014  
All Title I Conditions do not expire.

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

for Paul Eger  
Commissioner  
Minnesota Pollution Control Agency

**Permit Applications Table**

<b>Permit Type</b>	<b>Application Date</b>	<b>Permit Action</b>
Total Facility Oper. Permit - Reissuance	12/03/04	-005
Major Amendment	6/20/08	-005
Administrative Amendment	12/19/08	-005
MPCA-initiated reopenings	11/07/06; 1/05/07; 4/06/07; 1/24/08; 2/22/08	-005

## **TABLE OF CONTENTS**

**Notice to the Permittee**

**Permit Shield**

**Facility Description**

**Table A: Limits and Other Requirements**

**Table B: Submittals**

**Table C: *not used in this permit***

**Appendix A: *not used in this permit***

**Appendix B: Modeling Parameters**

**Appendix C: Insignificant Activities**

**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:**

The Permittee owns and operates a sugar beet processing facility. The emission units at this stationary source consists of two coal-fired boilers, a natural gas-fired boiler, three natural gas-fired pulp dryers, a pulp pellet cooler, a pulp pellet loadout operation, two lime kilns, two lime slakers, two sugar dryers, two sugar coolers, and dust collection systems from sugar packaging and storage operations.

The primary products from the facility are beet sugar, beet pulp, and beet molasses. Portions of the facility operate year round. Raw sugar beets are processed during the slicing campaign, which runs from the early fall to late spring. The juice and molasses campaigns run into the summer.

This permit action is the reissuance of the Title V operating permit.

The reissuance includes an update to the dust collection system, to address safety related issues. The facility will install four new dust collectors (EU035/CE033, EU036/CE034, EU037/CE035, and EU038/CE036) in the sugar handling area. These will replace several existing dust collectors (EU020/CE021, EU021/CE022, EU028/CE029, EU029/CE030, and EU030/CE031). This change by itself qualifies for a minor amendment, but is being authorized in conjunction with the Title V permit, and is included in the PM<sub>10</sub> modeling submitted in March 2009. The reissuance also includes addition of biogas as an allowed fuel for Boilers 1 and 2, and addition of coal and natural gas as allowed fuels for the lime kilns.

Finally, this permit action also incorporates operating parameter requirements according to conditions monitored during performance tests on the lime slakers, lime kilns, B-side sugar dryer, Boilers 1, 2, and 3, and pulp pellet loadout.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks  
 Permit Number: 11900002 - 005

**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
FACILITY SPECIFIC REQUIREMENTS	hdr
The parameters used in SO <sub>2</sub> , NO <sub>x</sub> , and CO modeling for permit no. 11900002-005 are listed in Appendix B of this permit.	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
The parameters used in PM <sub>10</sub> modeling for permit no. 11900002-005 are listed in Appendix B of this permit.  Modeling Triggers: For changes that affect any modeled parameter or emission rate but do not require a permit amendment, a Remodeling Submittal requirement is not triggered at the time of the change. The Permittee shall keep updated records on site of all parameters and emission rates. The Permittee shall submit any changes to parameters and emission rates with the next required Remodeling Submittal.  For changes that affect any modeled parameter or emission rate and require a minor, moderate, or major amendment, a Remodeling Submittal requirement is triggered. The Permittee shall include previously made changes to parameters and emission rates that did not trigger a Remodeling Submittal.	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
Remodeling Submittal: The Permittee must submit to the Commissioner for approval changes meeting the above criteria and must wait for a written approval before making such changes. For minor amendments, written approval of the modeling may be given before permit issuance; however, this approval applies only to the modeling and not to any other changes. The information submitted must include, for stack and vent sources: source emission rate, location, height, diameter, exit velocity, exit temperature, discharge direction, use of rain caps or rain hats, and, if applicable, locations and dimensions of nearby buildings. For non-stack/vent sources, this includes the source emission rate, location, size and shape, release height, and, if applicable, any emission rate scalars, and the initial lateral dimensions and initial vertical dimensions and adjacent building heights.  (continued below)	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
The plume dispersion characteristics due to the revisions of the information must be equivalent to or better than the dispersion characteristics modeled for the modeling submittal dated March 23, 2009. The Permittee shall demonstrate this equivalency in the proposal. If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must submit full remodeling.	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 (continued from above)
Modeling at Reissuance: The Permittee shall submit an assessment with the reissuance application (due as stated elsewhere in this permit) that addresses any changes made during the permit term that did not require a permit amendment but that affected any modeled parameter or emission rate and were not assessed in a later modeling submittal. The information in this submittal shall be the same as listed in the requirement entitled "Remodeling Submittal."	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
Hydrogen Sulfide: less than or equal to 0.05 parts per million as a half hour average not to be exceeded more than twice per year in the ambient air around the facility. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080.
Hydrogen Sulfide: less than or equal to 0.03 parts per million as a half hour average not to be exceeded more than twice in any five consecutive days in the ambient air around the facility. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<p>Hydrogen Sulfide Ambient Monitoring: the Permittee shall establish a hydrogen sulfide monitoring network to measure the ambient concentration of hydrogen sulfide during the warm weather months (April through October). The network must be in place and operating by April 1, 2000. A Hydrogen Sulfide Monitoring Plan shall be submitted to the MPCA and approved before the network can be constructed. The Permittee shall operate the network in subsequent years. The Permittee may make a written request to the Commissioner to cease operation of the network at any time. An analysis of the ambient H2S data collected to date shall accompany this request. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.</p>	<p>Minn. R. 7007.0800, subp. 4</p>
<p><b>DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW</b></p>	<p>hdr</p>
<p>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 52.2(r)(6)(vi)(a).</p> <p>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.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2</p>
<p>Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following:</p> <ol style="list-style-type: none"> <li>1. Project description</li> <li>2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected</li> <li>3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU.</li> <li>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.</li> </ol> <p>The Permittee shall maintain records of this documentation.</p>	<p>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 &amp; 5</p>
<p>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.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 &amp; 5</p>
<p>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:</p> <ol style="list-style-type: none"> <li>a. The name and ID number of the facility, and the name and telephone number of the facility contact person</li> <li>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.</li> <li>c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.</li> </ol>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 &amp; 5</p>
<p><b>OPERATIONAL REQUIREMENTS</b></p>	<p>hdr</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks  
 Permit Number: 11900002 - 005

State 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. The exemption for periods of start-up, shutdown and malfunction applies only if the conditions of Minn. R. 7011.0010, subp. 4(A), (B), and (C) are met.	Minn. R. 7011.0010, subp. 4
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); EPA Memo & Guidance on 'Affirmative Defense,' September 20, 1999.
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, subps. 7A, 7L & 7M; 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 plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the 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.	Minn. R. 7011.0150
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 enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	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
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
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.	Minn. R. 7017.2025, subp. 3
MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, 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.	Minn. R. 7007.0800, subp. 4(D)
RECORDKEEPING	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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 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).	Minn. R. 7007.0800, subp. 5(C)
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.	Minn. R. 7007.0800, subp. 5(B)
REPORTING/SUBMITTALS	hdr
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.  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.	Minn. R. 7019.1000, subp. 3
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 a permit amendment is needed, submit an 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. 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: GP 001 East and West Lime Slakers**

- Associated Items:** CE 014 Venturi Scrubber  
 EU 010 East Lime Slaker  
 EU 011 West Lime Slaker  
 SV 010 Lime Slakers

What to do	Why to do it
EMISSION & OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 4.82 lbs/hour . This is a combined limit of total PM10 allowed from SV010.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Process Throughput: less than or equal to 21 tons/hour using 8-hour Block Average (lime rock throughput, based on 10% increase from rate experienced during test of October 25-26, 2005). This limit will be amended as specified in Minn. R. 7017.2025 upon completion of each subsequent performance test.	Minn. R. 7017.2025, subp. 3
CONTROL REQUIREMENTS (See Subject Item CE014 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the venturi scrubber at any time that the process equipment controlled by the scrubber is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 90 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 90 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr
Process Throughput: Each day of operation, calculate and record the process (limerock) throughput for each 8-hour Block Average. Divide the total quantity of limerock throughput in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 60 months starting 10/26/2005 to measure PM10 emissions while operating both units. The interval between performance tests shall not exceed 60 months. The next test is due on or before 10/31/2010.	Title I Condition: testing of emissions subject to a limit based on 40 CFR Section 52.21(k); Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 10/26/2005 to measure total particulate matter emissions while operating both units. The interval between performance tests shall not exceed 60 months. The next test is due on or before 10/31/2010.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks  
 Permit Number: 11900002 - 005

**Subject Item: GP 002 East and West Lime Kilns**

**Associated Items:** CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 CE 013 Carbonation System  
 EU 008 East Lime Kiln  
 EU 009 West Lime Kiln  
 SV 009 Lime Kilns  
 SV 030 Carbonation Vent

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 4.36 lbs/hour . This is a combined limit of total PM10 allowed from SV009.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 27.0 lbs/hour during startup. This is a combined limit of total SO2 allowed from SV009.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 34.1 lbs/hour . This is a combined limit of total NOX allowed from SV009.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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. This limit applies individually to EU008 and EU009.	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. This limit applies individually to EU008 and EU009.	Minn. R. 7011.0610, subp. 1(A)(2)
Sulfur Dioxide: less than or equal to 4.0 lbs/million Btu heat input . This limit applies individually to EU008 and EU009.	Minn. R. 7011.0610, subp. 2(B)
Sulfur Content of Fuel: less than or equal to 0.75 percent by weight for coke or coal as received	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Fuels Allowed: anthracite coal, pulverized coal, industrial oven coke, petroleum coke, or natural gas as the main fuel source, and propane and wood fuels for initiating combustion.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Process Throughput: less than or equal to 23.8 tons/hour using 8-hour Block Average (lime rock throughput, based on a 10% increase from the rate experienced during the test of February 21, 2007). This limit will be amended as specified in Minn. R. 7017.2025 upon completion of each subsequent performance test.	Minn. R. 7017.2025, subp. 3
Fuel Usage: less than or equal to 1.9 tons/hour using 8-hour Block Average (combined coke/coal throughput, based on 10% increase from rate experienced during test of February 21, 2007). This limit will be amended as specified in Minn. R. 7017.2025 upon completion of each subsequent performance test.	Minn. R. 7017.2025, subp. 3
CONTROL REQUIREMENTS (See Subject Item CE012 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the fabric filter at any time that the process equipment controlled by the fabric filter exhausts to SV009. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall design and operate the carbonation system such that it achieves a control efficiency for Sulfur Dioxide: greater than or equal to 75 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks  
 Permit Number: 11900002 - 005

<p>Fuel Sulfur Content: Determine the sulfur content of each delivery of coke or coal by either of the following methods:</p> <p>1) obtain from the fuel supplier a signed certification of the sulfur content of the fuel for each shipment of fuel delivered, or</p> <p>2) according to the current American Society of Testing and Materials (ASTM) sampling and analysis methods.</p> <p>With either method, the weight represented by each separate sulfur content analysis shall be less than or equal to one train car. These records shall be maintained for a minimum of five years from the date the information was obtained.</p>	<p>Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5</p>
<p>Process Throughput: Each day of operation, calculate and record the process (limerock) throughput for each 8-hour Block Average. Divide the total quantity of limerock throughput in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.</p>	<p>Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5</p>
<p>Fuel Throughput: Each day of operation, calculate and record the process (coke/coal) throughput for each 8-hour Block Average. Divide the total quantity of coke throughput in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.</p>	<p>Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5</p>
<p>TESTING REQUIREMENTS</p>	<p>hdr</p>
<p>Performance Test: due before end of each 60 months starting 11/15/2000 to measure PM10 emissions while operating both units and combusting coal or coke. The interval between performance tests shall not exceed 60 months. The next test is due on or before 12/31/2011.</p>	<p>Title I Condition: testing of emissions subject to a limit based on 40 CFR Section 52.21(k); Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test: due before end of each 60 months starting 11/15/2000 to measure total particulate matter emissions while operating both units and combusting coal or coke. The interval between performance tests shall not exceed 60 months. The next test is due on or before 12/31/2011.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test Notifications and Submittals;</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 day before each Performance Test                  Performance Test Report: due 45 days after each Performance Test                  Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test.                  The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: GP 003 Dust Control Systems**

- Associated Items:**
- CE 023 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 024 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 027 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 033 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 034 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 035 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 036 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - EU 022 Conveying Dust System
  - EU 023 8A Screening Tower Central Vacuum
  - EU 024 Weibull Bin No. 3 Dust Control
  - EU 025 Weibull Bin No. 3, Central Vacuum
  - EU 026 Remelt Conveyor Dust Control System
  - EU 035 FLT-015 dust collection system
  - EU 036 FLT-016 dust collection system
  - EU 037 FLT-017 dust collection system
  - EU 038 FLT-018 dust collection system
  - SV 021 Conveying dust system
  - SV 022 8A Screening Tower central vac
  - SV 023 Weibull Bin 3
  - SV 024 Weibull Bin 3 central vac
  - SV 032 FLT-015 Dust control exhaust
  - SV 033 FLT-016 Dust control exhaust
  - SV 034 FLT-017 Dust control exhaust
  - SV 035 FLT-018 Dust control exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 microns: less than or equal to the following limits: SV021/EU022/CE023: 2.57 lb/hr SV022/EU023/CE024: 0.86 lb/hr SV023/EU024/CE025: 0.86 lb/hr SV024/EU025/CE026: 0.86 lb/hr SV032/EU035/CE033: 0.32 lb/hr SV033/EU036/CE034: 0.56 lb/hr SV034/EU037/CE035: 0.32 lb/hr SV035/EU038/CE036: 0.32 lb/hr	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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 (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.0715, subp. 1(B)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks  
 Permit Number: 11900002 - 005

POLLUTION CONTROL EQUIPMENT REQUIREMENTS (See Subject Items CE023, CE024, CE025, CE026, CE027, CE033, CE034, CE035, and CE036 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain each fabric filter at any time that the process equipment controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup of EU035/CE033 to measure PM10 emissions from SV032.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup of EU036/CE034 to measure PM10 emissions from SV033.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup of EU037/CE035 to measure PM10 emissions from SV034.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup of EU038/CE036 to measure PM10 emissions from SV035.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals:  Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.  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  The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-10

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: GP 006 Boiler Fuel Limits****Associated Items:** EU 001 Boiler No. 1

EU 002 Boiler No. 2

<b>What to do</b>	<b>Why to do it</b>
Fuels Allowed: Subbituminous coal, coke fines as limited below, on-site generated used oil and used oil sorbents as limited below, and biogas (methane generated at the wastewater treatment system).	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Fuel Usage: less than or equal to 600 tons/year using 12-month Rolling Sum of coke fines.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Fuel Usage: less than or equal to 15000 gallons/year using 12-month Rolling Sum of on-site generated used oil and used oil sorbents.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Fuel Usage: By the 15th day of each calendar month calculate the total amount of coke fines combusted in EU 001 and EU002 for the previous month. At this time also calculate the new 12-month rolling sum.	Minn. R. 7007.0800, subp. 2
Fuel Usage: By the 15th day of each calendar month calculate the total amount of used oil/sorbents for the previous month. At this time also calculate the new 12-month rolling sum.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: GP 007 Multiclone Hoppers**

**Associated Items:** CE 004 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

CE 006 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

CE 008 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

EU 032 Multiclone A hopper

EU 033 Multiclone B hopper

EU 034 Multiclone C hopper

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each Emission Unit listed in GP007. However, the control devices listed exhaust the controlled emissions out the Pulp Dryer stacks; the PM emissions from GP007 units are indistinguishable from the Pulp Dryer emissions.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity This limit applies individually to each Emission Unit listed in GP007. However, the control devices listed exhaust the controlled emissions out the Pulp Dryer stacks; the opacity due to the GP007 units is indistinguishable from the opacity due to the Pulp Dryers.	Minn. R. 7011.0715, subp. 1(B)
CONTROL REQUIREMENTS (See Subject Items CE004, CE006, and CE008 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7007.0800, subp. 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 99 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: GP 008 CEMS**

**Associated Items:** MR 001 NOX/SO2 Monitor

MR 004 NOX/SO2 Monitor

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 Section 60.45(c)(3)(i) (1500 for SO <sub>2</sub> , 1000 for NO <sub>x</sub> ). 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 CEMS 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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: GP 009 COMS**

**Associated Items:** MR 009 Opacity Monitor

MR 010 Opacity Monitor

What to do	Why to do it
<p>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.</p> <p>Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.</p>	<p>Minn. R. 7017.1090, subp. 1; 40 CFR Section 60.13(e); 40 CFR Section 64.7(c); Minn. R. 7017.0200</p>
<p>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.</p>	<p>Minn. R. 7017.1200, subp. 1, 2 &amp; 3; 40 CFR Section 60.13(e)(1); 40 CFR Section 60.13(h)</p>
<p>Reduction of Monitoring Data: The Permittee must reduce the monitoring data from each COMS as specified in 40 CFR Section 60.13(h).</p>	<p>40 CFR Section 60.13(h)</p>
<p>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.</p>	<p>Minn. R. 7017.1210, subp. 1; 40 CFR Section 64.7(b); Minn. R. 7017.0200</p>
<p>COMS QA/QC: The owner or operator is subject to Performance Specifications (PS) 1 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.</p>	<p>40 CFR Section 60.13(a); Minn. R. 7017.1210; 40 CFR Section 64.7(b); Minn. R. 7017.0200</p>
<p>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.</p> <p>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.</p> <p>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).</p>	<p>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</p>
<p>COMS Calibration Error Audit: due before end of each calendar half-year following permit issuance. 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. 7017.1220, subp. 3.</p>	<p>Minn. R. 7017.1210, subp. 3; 40 CFR Section 64.7(b); Minn. R. 7017.0200</p>
<p>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.</p>	<p>Minn. R. 7017.1210, subp. 4; 40 CFR Section 64.7(b); Minn. R. 7017.0200</p>
<p>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.</p>	<p>Minn. R. 7017.1130</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks  
 Permit Number: 11900002 - 005

**Subject Item: EU 001 Boiler No. 1**

**Associated Items:** CE 001 Electrostatic Precipitator - High Efficiency  
 GP 006 Boiler Fuel Limits  
 MR 001 NOX/SO2 Monitor  
 MR 007 O2 Monitor  
 MR 009 Opacity Monitor  
 SV 001 Boiler 1 ESP exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 25.0 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.10 lbs/million Btu heat input	40 CFR Section 60.42(a)(1); Minn. R. 7011.0555
Sulfur Dioxide: less than or equal to 391.8 lbs/hour using 3-hour Average	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 1.2 lbs/million Btu heat input using 3-hour Average	40 CFR Section 60.43(a)(2); Minn. R. 7011.0555
Nitrogen Oxides: less than or equal to 227.9 lbs/hour using 3-hour Average	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 0.70 lbs/million Btu heat input using 3-hour Average	40 CFR Section 60.44(a)(3); Minn. R. 7011.0555
Opacity: less than or equal to 20 percent opacity except for one 6-minute period per hour of not more than 27 percent opacity. This limit applies at all times except during periods of startup, shutdown, and malfunction.	40 CFR Section 60.42(a)(2); Minn. R. 7011.0555
OPERATING LIMITS	hdr
Fuels Allowed: Subbituminous coal, coke fines, on-site generated used oil and used oil sorbents, and boigas (methane generated at the wastewater treatment system). (See Subject Item GP006 for fuel limitations.)	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Steam Flow: less than or equal to 275000 lbs/hour using 8-hour Block Average , 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. 7017.2025, subp. 3
CONTROL REQUIREMENTS (see Subject Item CE001 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the ESP at any time that the process equipment controlled by the ESP is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 95 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING and RECORDKEEPING REQUIREMENTS	hdr
Emissions Monitoring: The Permittee shall use CEMS to measure SO2 and NOx emissions from SV001 (EU001). (See also Subject Items MR001 and GP008)	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; 40 CFR Section 60.45(a); Minn. R. 7011.0555; Minn. R. 7017.1006
Emissions Monitoring: The Permittee shall use a COMS to measure opacity emissions from SV001 (EU001). (See also Subject Items MR009 and GP009)	40 CFR Section 60.45(a); Minn. R. 7011.0555; Minn. R. 7017.1006; 40 CFR Section 64.3(d)
The COMS data shall also be used in assessing the control device operation as required by 40 CFR Section 64.3(d).	
Steam Flow: Each day of operation, calculate and record the steam production rate for each 8-hour Block Average. Divide the total quantity of steam flow in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-15

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

Performance Test: due before end of each 36 months starting 03/15/2001 to measure particulate matter less than 10 microns (PM10) emissions. The interval between performance tests shall not exceed 36 months. The next test is due on or before 10/31/2009.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 36 months starting 03/15/2001 to measure total particulate matter. The interval between performance tests shall not exceed 36 months. The next test is due on or before 10/31/2009.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: EU 002 Boiler No. 2**

**Associated Items:** CE 002 Electrostatic Precipitator - High Efficiency

GP 006 Boiler Fuel Limits

MR 004 NOX/SO2 Monitor

MR 008 O2 Monitor

MR 010 Opacity Monitor

SV 002 Boiler 2 ESP exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 25.0 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.10 lbs/million Btu heat input	40 CFR Section 60.42(a)(1); Minn. R. 7011.0555
Sulfur Dioxide: less than or equal to 391.8 lbs/hour using 3-hour Average	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 1.20 lbs/million Btu heat input using 3-hour Average	40 CFR Section 60.43(a)(2); Minn. R. 7011.0555
Nitrogen Oxides: less than or equal to 227.9 lbs/hour using 3-hour Average	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 0.70 lbs/million Btu heat input using 3-hour Average	40 CFR Section 60.44(a)(3); Minn. R. 7011.0555
Opacity: less than or equal to 20 percent opacity except for one 6-minute period per hour of not more than 27 percent opacity. This limit applies at all times except during periods of startup, shutdown, and malfunction.	40 CFR Section 60.42(a)(2); Minn. R. 7011.0555
OPERATING LIMITS	hdr
Fuels Allowed: Subbituminous coal, coke fines, on-site generated used oil and used oil sorbents, and boigas (methane generated at the wastewater treatment system). (See Subject Item GP006 for fuel limitations.)	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
Steam Flow: less than or equal to 250000 lbs/hour using 8-hour Block Average , 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. 7017.2025, subp. 3
CONTROL REQUIREMENTS (see Subject Item CE001 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the ESP at any time that the process equipment controlled by the ESP is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 95 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING and RECORDKEEPING REQUIREMENTS	hdr
Emissions Monitoring: The Permittee shall use CEMS to measure SO2 and NOX emissions from SV002 (EU002). (See also Subject Items MR004 and GP008)	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; 40 CFR Section 60.45(a); Minn. R. 7011.0555; Minn. R. 7017.1006
Emissions Monitoring: The Permittee shall use a COMS to measure opacity emissions from SV002 (EU002). (See also Subject Items MR010 and GP009)	40 CFR Section 60.45(a); Minn. R. 7011.0555; Minn. R. 7017.1006; 40 CFR Section 64.3(d)
The COMS data shall also be used in assessing the control device operation as required by 40 CFR Section 64.3(d).	
Steam Flow: Each day of operation, calculate and record the steam production rate for each 8-hour Block Average. Divide the total quantity of steam flow in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-17

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

Performance Test: due before end of each 36 months starting 03/15/2001 to measure particulate matter less than 10 microns (PM10) emissions. The interval between performance tests shall not exceed 36 months. The next test is due on or before 10/31/2009.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 36 months starting 03/15/2001 to measure total particulate matter. The interval between performance tests shall not exceed 36 months. The next test is due on or before 10/31/2009.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 003 Pulp Dryer A

**Associated Items:** CE 003 Multiple Cyclone w/Fly Ash Reinjection-Common w/Coal Boilers

SV 003 Pulp Dryer A exhaust

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 28.0 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0610, subp. 1(A)(1)
Nitrogen Oxides: less than or equal to 4.76 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
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)
Fuels Allowed: natural gas and biogas (methane generated at the wastewater treatment system) only.	Minn. R. 7007.0800, subp. 2
Process Throughput: less than or equal to 10.02 tons/hour using 8-hour Block Average (bone dry pulp rate), 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. 7017.2025, subp. 3
CONTROL EQUIPMENT REQUIREMENTS (see Subject Item CE003 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the multiclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 50 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 50 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr
Process Throughput: Each day of operation, calculate and record the pulp drying rate for each 8-hour Block Average. Divide the total quantity of pup throughput in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 36 months starting 03/15/2001 to measure particulate matter less than 10 microns (PM10) emissions from SV003. The interval between performance tests shall not exceed 36 months. The next test is due on or before 01/31/2010.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 36 months starting 03/15/2001 to measure total particulate matter emissions from SV003. The interval between performance tests shall not exceed 36 months. The next test is due on or before 01/31/2010.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks  
 Permit Number: 11900002 - 005

**Subject Item:** EU 004 Pulp Dryer B

**Associated Items:** CE 005 Multiple Cyclone w/Fly Ash Reinjection-Common w/Coal Boilers  
 SV 004 Pulp Dryer B exhaust

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 28.0 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0610, subp. 1(A)(1)
Nitrogen Oxides: less than or equal to 5.48 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
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)
Fuels Allowed: natural gas and biogas (methane generated at the wastewater treatment system) only.	Minn. R. 7007.0800, subp. 2
Process Throughput: less than or equal to 10.38 tons/hour using 8-hour Block Average (bone dry pulp rate), 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. 7017.2025, subp. 3
CONTROL EQUIPMENT REQUIREMENTS (see Subject Item CE005 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the multiclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 50 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 50 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr
Process Throughput: Each day of operation, calculate and record the pulp drying rate for each 8-hour Block Average. Divide the total quantity of pulp throughput in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 36 months starting 03/15/2001 to measure particulate matter less than 10 microns (PM10) emissions from SV004. The interval between performance tests shall not exceed 36 months. The next test is due on or before 01/31/2010.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 36 months starting 03/15/2001 to measure total particulate matter emissions from SV004. The interval between performance tests shall not exceed 36 months. The next test is due on or before 01/31/2010.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 005 Pulp Dryer C

**Associated Items:** CE 007 Multiple Cyclone w/Fly Ash Reinjection-Common w/Coal Boilers

SV 005 Pulp Dryer C exhaust

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 45.0 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 28.0 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0610, subp. 1(A)(1)
Total Particulate Matter: less than or equal to 17.4 lbs/hour using EPA Method 5 as amended by Minn. R. 7011.0725, subp. 2	Title I Condition: 40 CFR Section 52.21(j) (BACT); Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 4.76 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
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)
Fuels Allowed: natural gas and biogas (methane generated at the wastewater treatment system) only.	Minn. R. 7007.0800, subp. 2
Process Throughput: less than or equal to 12.2 tons/hour using 8-hour Block Average (bone dry pulp rate), 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. 7017.2025, subp. 3
CONTROL EQUIPMENT REQUIREMENTS (see Subject Item CE007 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the multiclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 50 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 50 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr
Process Throughput: Each day of operation, calculate and record the pulp drying rate for each 8-hour Block Average. Divide the total quantity of pulp throughput in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 36 months starting 03/15/2001 to measure particulate matter less than 10 microns (PM10) emissions from SV005. The interval between performance tests shall not exceed 36 months. The next test is due on or before 01/31/2010.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 36 months starting 03/15/2001 to measure total particulate matter emissions from SV005. The interval between performance tests shall not exceed 36 months. The next test is due on or before 01/31/2010.	Minn. R. 7017.2020, subp. 1



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-21

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<p>Performance Test Notifications and Submittals;</p> <p>Performance Test Notification (written): due 30 days before each Performance Test</p> <p>Performance Test Plan: due 30 days before each Performance Test</p> <p>Performance Test Pre-Test Meeting: due 7 day before each Performance Test</p> <p>Performance Test Report: due 45 days after each Performance Test</p> <p>Performance Test Report - Microfiche Copy or CD: due 105 day 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. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 006 Pellet Cooler

**Associated Items:** CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 006 Pellet Cooler Exhaust

SV 007 Pellet Cooler Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.50 lbs/hour for each stack (SV 006 and SV 007)	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Process Throughput: less than or equal to 26.8 tons/hour using 8-hour Block Average of pellets, 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. 7017.2025, subp. 3
CONTROL REQUIREMENTS (See Subject Items CE009 and CE010 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the fabric filters at all times that any emission unit controlled by the filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
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. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr
Process Throughput: Each day of operation, calculate and record the pellet cooling rate for each 8-hour Block Average. Divide the total quantity of pulp throughput in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 60 months starting 11/19/1997 to measure PM10 emissions from both SV006 and SV007. The interval between performance tests shall not exceed 60 months. The next test is due on or before 11/30/2012.	Title I Condition: testing of emissions subject to a limit based on 40 CFR Section 52.21(k); Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 11/19/1997 to measure total particulate matter and opacity emissions. The interval between performance tests shall not exceed 60 months. The next test is due on or before 11/30/2012.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 007 Pulp Pellet Loadout 1

**Associated Items:** CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 008 Pulp Pellet Loadout 1

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 1.89 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Opacity: less than or equal to 10 percent opacity for fugitive emissions from truck loading at EU007.	Minn. R. 7011.1005, subp. 3(B)
Opacity: less than or equal to 10 percent opacity for emissions vented through SV008.	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 RACT (reasonably available control technology).	Minn. R. 7011.1005, subp. 1(A)
POLLUTION CONTROL REQUIREMENTS (see also Subject Item CE011 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the fabric filter 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: 40 CFR Section 52.21(k); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
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. 7007.0800, subp. 2 and 14
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 80 percent collection efficiency	Minn. R. 7011.1005, subp. 3(E)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 012 A-Side Sugar Dryer

**Associated Items:** CE 015 Dynamic Separator (Wet)

SV 011 A-Side Sugar Dryer Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 1.0 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	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)
CONTROL REQUIREMENTS (See Subject Item CE015 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the multiclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 50 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 50 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 36 months starting 03/15/2001 to measure particulate matter less than 10 microns (PM10) emissions. The interval between performance tests shall not exceed 36 months. The next test is due on or before 10/31/2010.	Title I Condition: testing of emissions subject to a limit based on 40 CFR Section 52.21(k); Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 36 months starting 03/15/2001 to measure total particulate matter. The interval between performance tests shall not exceed 36 months. The next test is due on or before 10/31/2010.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 013 A-Side Sugar Cooler

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

SV 012 A-Side Sugar Cooler Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.11 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL REQUIREMENTS (See Subject Item CE016 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
TESTING REQUIREMENTS	hdr
Performance Test: due before 12/31/2011 to measure particulate matter less than 10 microns (PM10) emissions.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 014 B-Side Sugar Dryer

**Associated Items:** CE 017 Dynamic Separator (Wet)

SV 013 B-Side Sugar Dryer Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 1.20 lbs/hour using EPA Methods 201A and 202. If EPA Method 5 is used in place of Method 201A the sum of Methods 5 and 202 shall be considered to be the PM10 result.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	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)
CONTROL REQUIREMENTS (See Subject Item CE017 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the multiclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 50 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 50 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 36 months starting 11/15/2000 to measure particulate matter less than 10 microns (PM10) emissions. The interval between performance tests shall not exceed 36 months. The next test is due on or before 01/31/2012.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7017.2020, subp. 1
Performance Test: due before end of each 60 months starting 11/15/2000 to measure total particulate matter. The interval between performance tests shall not exceed 60 months. The next test is due on or before 01/31/2015.	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 015 B-Side Sugar Cooler

**Associated Items:** CE 018 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 014 B-Side Sugar Cooler Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.59 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL REQUIREMENTS (See Subject Item CE018 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: EU 016 B-Side Dust Control System**

**Associated Items:** CE 019 Dynamic Separator (Wet)

SV 015 B-Side Dust Control

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 1.14 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL REQUIREMENTS (See Subject Item CE019 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the control equipment is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron: greater than or equal to 50 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 50 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
TESTING REQUIREMENTS	hdr
Performance Test: due before 12/31/2011 to measure particulate matter less than 10 microns (PM10) emissions.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: EU 017 Boiler No. 3 (Ion Exclusion)**

**Associated Items: SV 016 Boiler 3 Exhaust**

What to do	Why to do it
EMISSION LIMITS	hdr
Nitrogen Oxides: less than or equal to 0.075 lbs/million Btu heat input using 1-Hour Average . This limit does not apply during startup or shutdown (as defined below) of EU017.	Title I Condition: 40 CFR Section 52.21(j)(3) BACT; Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 0.1 lbs/million Btu heat input using 30-day Rolling Average . This limit applies at all times.	40 CFR Section 60.44b(a)(1); Minn. R. 7011.0565
Particulate Matter < 10 micron: less than or equal to 1.0 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 0.159 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Fuel Use: restricted to natural gas only	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
MONITORING REQUIREMENTS	hdr
PEMS Monitoring Plan for Nitrogen Oxides Emissions. The PEMS Monitoring Plan shall include the required items identified in 60.49b(c)(1), (2), and (3). If at any time the Permittee discovers that the approved PEMS Monitoring Plan no longer provides valid emissions data, the Permittee shall make corrections and revise the PEMS Monitoring Plan within 30 days of discovery.	40 CFR Section 60.49b(c); Minn. R. 7011.0565; Minn. R. 7007.0800, subp. 2
Startup Period: Defined as the initial 120 minutes of operation of EU017 after any time during which operation of EU017 ceased for more than 60 consecutive minutes.	Minn. R. 7007.0800, subp. 2
Shutdown Period: Defined as the final 60 minutes of operation of EU017 immediately preceding the time that fuel flow is shut off to EU017.	
Operation of EU017: Defined as whenever there is any fuel flow to EU017.	
PEMS Relative Accuracy Test Audit (RATA): due before end of each 60 months starting 03/05/1998 (date of original PEMS Certification Test). Each RATA shall be conducted at an interval not to exceed 60 months. The most recent RATA was completed in October 2006; the next RATA is due by October 31, 2011.	Minn. R. 7007.0800, subp. 2
PEMS Relative Accuracy Test Audit (RATA) Notification: due 30 days before PEMS Relative Accuracy Test Audit (RATA) .	Minn. R. 7007.0800, subp. 2
PEMS Monitoring Data: The owner or operator shall obtain a minimum of one data point in each 15-minute period while EU017 is operating. The owner or operator shall calculate hourly averages from a minimum of four equally spaced data points in each 60 minute period. If EU017 is operated for less than 60-minutes, the hourly average shall be calculated from at least one data point in a 15-minute period.	Minn. R. 7007.0800, subp. 2
Continuous Operation: Except for system breakdowns, repairs, and calibration checks, the PEMS shall be in continuous operation.	Title I Condition: monitoring of emissions subject to a limit based on 40 CFR Section 52.21(k); 40 CFR Section 60.48b(g)(2); Minn. R. 7007.0800, subp.2
RECORDKEEPING	hdr
Recordkeeping: The owner or operator must retain records of all PEMS 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 and include predicted NOx emission rates and the monitored operating conditions, including steam generating unit load, identified in the PEMS Monitoring Plan.	40 CFR Sections 60.7(f) and 60.49b(c)(3); Minn. R. 7011.0565; Minn. R. 7007.0800, subp. 5
Records of Startup, Shutdown, or Malfunction: Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-30

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 018 Waste Water Ground Flare**Associated Items:** SV 017 Waste water ground flare

<b>What to do</b>	<b>Why to do it</b>
Total Particulate Matter: less than or equal to 0.3 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** EU 031 Pulp Pellet Loadout 2

**Associated Items:** CE 032 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 031 Pulp pellet loadout

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 1.71 lbs/hour	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Opacity: less than or equal to 10 percent opacity for fugitive emissions from truck loading at EU031.	Minn. R. 7011.1005, subp. 3(B)
Opacity: less than or equal to 10 percent opacity for emissions vented through SV031.	Minn. R. 7011.1005, subp. 3(D)
Total Particulate Matter: greater than or equal to 80 percent collection efficiency	Minn. R. 7011.1005, subp. 3(E)
Process Throughput: less than or equal to 191 tons/hour using 8-hour Block Average (loaded pulp). This limit will be amended as specified in Minn. R. 7017.2025 upon completion of each subsequent performance test.	Minn. R. 7017.2025, subp. 3
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 RACT (reasonably available control technology).	Minn. R. 7011.1005, subp. 1(A)
CONTROL REQUIREMENTS (See Subject Item CE032 for specific control equipment operating requirements)	hdr
The Permittee shall operate and maintain the control equipment at any time that the process equipment controlled by the multiclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000
The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr
Process Throughput: Each day of operation, calculate and record the pulp loading rate for each 8-hour Block Average. Divide the total quantity of pulp loaded at EU031 in each 8-hour block by the total operating time in the 8-hour block. Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 60 months starting 11/15/2001 to measure PM10 emissions from SV031 (EU031/CE032). The interval between performance tests shall not exceed 60 months. The next test is due on or before 11/30/2011.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals;  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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 001 Electrostatic Precipitator - High Efficiency**

**Associated Items: EU 001 Boiler No. 1**

What to do	Why to do it
Operation and Maintenance of ESP: The Permittee shall operate and maintain the ESP 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 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.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5
The Permittee shall operate CE001 with no less than the minimum number of fields online during the most-recent performance test that measured PM10 emissions less than the applicable limit in table A of this permit.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 14
Opacity: less than or equal to 9.2 percent opacity using 3-hour Rolling Average . Opacity in excess of this limit shall be considered an excursion under 40 CFR Section 64.6(c)(2)	40 CFR Section 64.3; Minn. R. 7017.0200
Continuous Monitoring: The Permittee shall continuously, or at a minimum once every 15 minutes, monitor the opacity of the ESP exhaust. [See Subject Items GP009 and MR009 for specific COMS operating requirements.]	40 CFR Section 64.4(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
Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer, the Permittee shall inspect the control equipment components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts. 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
Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer, the Permittee shall inspect the control equipment components not covered by the quarterly inspections. 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 9.2%; 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
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: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 002 Electrostatic Precipitator - High Efficiency**

**Associated Items: EU 002 Boiler No. 2**

What to do	Why to do it
Operation and Maintenance of ESP: The Permittee shall operate and maintain the ESP 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 record the minimum number of fields online in CE002 once each day of operation of EU002. 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.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5
The Permittee shall operate CE002 with no less than the minimum number of fields online during the most-recent performance test that measured PM10 emissions less than the applicable limit in table A of this permit.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 14
Opacity: less than or equal to 9.2 percent opacity using 3-hour Rolling Average . Opacity in excess of this limit shall be considered an excursion under 40 CFR Section 64.6(c)(2)	40 CFR Section 64.3; Minn. R. 7017.0200
Continuous Monitoring: The Permittee shall continuously, or at a minimum once every 15 minutes, monitor the opacity of the ESP exhaust. [See Subject Items GP009 and MR010 for specific COMS operating requirements.]	40 CFR Section 64.4(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
Periodic Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer, the Permittee shall inspect the control equipment components that are subject to wear or plugging, for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts. 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
Annual Inspections: At least once per calendar year, or more frequently if required by the manufacturer, the Permittee shall inspect the control equipment components not covered by the quarterly inspections. 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 9.2%; 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
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: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 003 Multiple Cyclone w/Fly Ash Reinjection-Common w/Coal Boilers

**Associated Items:** EU 003 Pulp Dryer A

What to do	Why to do it
The Permittee shall operate and maintain the multiclone 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.	40 CFR Section 64.7(b); Minn. R. 7017.0200
Pressure Drop: greater than or equal to 2.5 inches of water column and less than or equal to 8.1 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the multiclone. The recording device shall also calculate the three-hour rolling average pressure drop.	40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017.0200
The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings and calculated three hour rolling average pressure drop. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.9(b); Minn. R. 7017.0200
Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, 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; - the recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 multiclone is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-37

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 004 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F**

**Associated Items:** EU 032 Multiclone A hopper

GP 007 Multiclone Hoppers

What to do	Why to do it
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
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 fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 3.0 inches of water column and less than or equal to 6.0 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. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Recordkeeping of Pressure Drop. 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.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
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 fabric filter 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 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. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 005 Multiple Cyclone w/Fly Ash Reinjection-Common w/Coal Boilers

**Associated Items:** EU 004 Pulp Dryer B

What to do	Why to do it
The Permittee shall operate and maintain the multiclone 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.	40 CFR Section 64.7(b); Minn. R. 7017.0200
Pressure Drop: greater than or equal to 2.5 inches of water column and less than or equal to 8.1 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the multiclone. The recording device shall also calculate the three-hour rolling average pressure drop.	40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017.0200
The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings and calculated three hour rolling average pressure drop. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.9(b); Minn. R. 7017.0200
Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, 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; - the recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 multiclone is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

**A-40**

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 006 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

**Associated Items:** EU 033 Multiclone B hopper

GP 007 Multiclone Hoppers

What to do	Why to do it
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
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 fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 3.0 inches of water column and less than or equal to 6.0 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. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Recordkeeping of Pressure Drop. 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.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
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 fabric filter 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 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. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 007 Multiple Cyclone w/Fly Ash Reinjection-Common w/Coal Boilers

**Associated Items:** EU 005 Pulp Dryer C

What to do	Why to do it
The Permittee shall operate and maintain the multiclone 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.	40 CFR Section 64.7(b); Minn. R. 7017.0200
Pressure Drop: greater than or equal to 2.5 inches of water column and less than or equal to 8.1 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the multiclone. The recording device shall also calculate the three-hour rolling average pressure drop.	40 CFR Section 64.3(b)(4)(ii); Minn. R. 7017.0200
The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings and calculated three hour rolling average pressure drop. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.9(b); Minn. R. 7017.0200
Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, 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; - the recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 multiclone is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

**A-43**

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 008 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F**

**Associated Items:** EU 034 Multiclone C hopper

GP 007 Multiclone Hoppers

What to do	Why to do it
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
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 fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 3.0 inches of water column and less than or equal to 6.0 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. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Recordkeeping of Pressure Drop. 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.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
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 fabric filter 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 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. 4, 5, and 14



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 006 Pellet Cooler

What to do	Why to do it
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
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 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.	Title I Condition: 40 CFR Section 52.21(k), Minn. R. 7007.3000; Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Daily Inspections: Once every 24 hours, the Permittee shall read and record the pressure drop across the fabric filter.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 pressure drop is outside the required operating range; or - the fabric filter 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 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 006 Pellet Cooler

What to do	Why to do it
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
Pressure Drop: greater than or equal to 5.0 inches of water column and less than or equal to 11.0 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.	Title I Condition: 40 CFR Section 52.21(k), Minn. R. 7007.3000; Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Daily Inspections: Once every 24 hours, the Permittee shall read and record the pressure drop across the fabric filter.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 pressure drop is outside the required operating range; or - the fabric filter 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 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 007 Pulp Pellet Loadout 1

What to do	Why to do it
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
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 fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Visible Emissions: The Permittee shall check the fabric filter stack (SV008) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 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.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 008 East Lime Kiln

EU 009 West Lime Kiln

GP 002 East and West Lime Kilns

What to do	Why to do it
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
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Daily Inspections: Once every 24 hours, the Permittee shall read and record the pressure drop across the fabric filter.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 pressure drop is outside the required operating range; or - the fabric filter 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 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 014 Venturi Scrubber

**Associated Items:** EU 010 East Lime Slaker

EU 011 West Lime Slaker

GP 001 East and West Lime Slakers

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
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop, water flow rate, and water supply pressure as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 5.0 inches of water column and less than or equal to 15.0 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. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Water flow rate: greater than or equal to 30 gallons/minute and less than or equal to 60 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. The Permittee shall record the water flow rate at least once every 24 hours when in operation.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Water pressure: greater than or equal to 10 psi (gauge) and less than 60 psi (gauge) , 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. The Permittee shall record the water pressure at least once every 24 hours when in operation.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Pressure Drop, Water Flow Rate, and Water Supply Pressure. The Permittee shall record the time and date of each pressure drop reading, water flow rate reading, and water supply pressure reading, and whether or not the recorded reading was within the range specified in this permit.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subps. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded water supply pressure is outside the required operating range; or - 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 and/or water supply pressure 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.	Minn. R. 7007.0800, subps. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 015 Dynamic Separator (Wet)**

**Associated Items:** EU 012 A-Side Sugar Dryer

What to do	Why to do it
The Permittee shall operate and maintain the control device 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
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording water flow rate and water pressure as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the control device is in operation.	Minn. R. 7007.0800, subp. 4
Water flow rate: greater than or equal to 2.0 gallons/minute and less than or equal to 5.0 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. The Permittee shall record the water flow rate at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Water pressure: greater than or equal to 20 psi (gauge) and less than or equal to 60 psi (gauge) , 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. The Permittee shall record the water pressure at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Recordkeeping of Water Flow Rate and Water Pressure. The Permittee shall record the time and date of each water flow rate reading and water pressure reading and whether or not the recorded value was within the range specified in this permit.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
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; - the recorded water pressure is outside the required operating range; or - the control device or any of its components are found during the inspections to need repair. Corrective actions shall return the water pressure 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 control device. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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

**Associated Items: EU 013 A-Side Sugar Cooler**

What to do	Why to do it
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
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 fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 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. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
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 fabric filter 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 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. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 017 Dynamic Separator (Wet)**

**Associated Items: EU 014 B-Side Sugar Dryer**

What to do	Why to do it
The Permittee shall operate and maintain the control device 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
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording water flow rate and water pressure as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the control device is in operation.	Minn. R. 7007.0800, subp. 4
Water flow rate: greater than or equal to 2.0 gallons/minute and less than or equal to 8.0 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. The Permittee shall record the water flow rate at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Water pressure: greater than or equal to 20 psi (gauge) and less than or equal to 60 psi (gauge) , 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. The Permittee shall record the water pressure at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Recordkeeping of Water Flow Rate and Water Pressure. The Permittee shall record the time and date of each water flow rate reading and water pressure reading and whether or not the recorded value was within the range specified in this permit.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
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; - the recorded water pressure is outside the required operating range; or - the control device or any of its components are found during the inspections to need repair. Corrective actions shall return the water pressure 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 control device. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 018 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items: EU 015 B-Side Sugar Cooler**

What to do	Why to do it
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
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 8.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Daily Inspections: Once every 24 hours, the Permittee shall read and record the pressure drop across the fabric filter.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 pressure drop is outside the required operating range; or - the fabric filter 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 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 019 Dynamic Separator (Wet)**

**Associated Items: EU 016 B-Side Dust Control System**

What to do	Why to do it
The Permittee shall operate and maintain the control device 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
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording water flow rate and water pressure as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the control device is in operation.	Minn. R. 7007.0800, subp. 4
Water flow rate: greater than or equal to 1.0 gallons/minute and less than or equal to 3.0 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. The Permittee shall record the water flow rate at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Water pressure: greater than or equal to 20 psi (gauge) and less than or equal to 60 psi (gauge) , 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. The Permittee shall record the water pressure at least once every 24 hours when in operation.	Minn. R. 7007.0800, subp.2; Minn. R. 7007.0800, subp.4
Recordkeeping of Water Flow Rate and Water Pressure. The Permittee shall record the time and date of each water flow rate reading and water pressure reading and whether or not the recorded value was within the range specified in this permit.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
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; - the recorded water pressure is outside the required operating range; or - the control device or any of its components are found during the inspections to need repair. Corrective actions shall return the water pressure 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 control device. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 023 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 022 Conveying Dust System

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV021) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 0.50 inches of water column and less than or equal to 5.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 024 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 023 8A Screening Tower Central Vacuum

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV022) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 10.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-58

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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

**Associated Items:** EU 024 Weibull Bin No. 3 Dust Control

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV023) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 5.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

**A-60**

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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

**Associated Items:** EU 025 Weibull Bin No. 3, Central Vacuum

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV024) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 10.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 027 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 026 Remelt Conveyor Dust Control System

GP 003 Dust Control Systems

What to do	Why to do it
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
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 fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Visible Emissions: The Permittee shall check the fabric filter stack (SV025) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 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.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item:** CE 032 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 031 Pulp Pellet Loadout 2

What to do	Why to do it
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
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 fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Visible Emissions: The Permittee shall check the fabric filter stack (SV031) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 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.	Title I Condition: 40 CFR Section 52.21(k) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 033 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 035 FLT-015 dust collection system

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV032) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 22.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-66

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 034 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 036 FLT-016 dust collection system

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV033) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 26.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

**A-68**

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 035 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 037 FLT-017 dust collection system

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV034) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 14.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

**A-70**

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

**Subject Item: CE 036 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**

**Associated Items:** EU 038 FLT-018 dust collection system

GP 003 Dust Control Systems

What to do	Why to do it
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
Daily Inspections: Once every 24 hours, the Permittee shall check the fabric filter stack (SV035) for any visible emissions during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once every 24 hours.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 17.0 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.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. Visible emissions or recorded pressure drop values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; 40 CFR Section 64.3; Minn. R. 7017.0200
Periodic Inspections: At least once per calendar quarter, 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 recorded pressure drop is outside the required operating range; or - the fabric filter 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, 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
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 fabric filter is in operation.	40 CFR Section 64.7(b); Minn. R. 7017.0200
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.	40 CFR Section 64.3; 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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

**A-72**

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<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>	<p>40 CFR Section 64.9(b); Minn. R. 7017.0200</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

Subject Item: **FS 030 Vehicle Traffic**

What to do	Why to do it
OPERATING REQUIREMENTS	hdr
All trucks delivering beets shall drive on paved roads when traveling from the site entrance to the beet piling stations.	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
Annual Definition of Beet Stockpiling Period: Each calendar year, the Permittee shall define the Beet Stockpile or Beet Stockpiling period as a period during which beets are harvested and brought onto the East Grand Forks site for storage prior to later processing. The exact dates of the period defined as the Beet Stockpile or Beet Stockpiling period may vary from year to year, but generally begins in early October and lasts for approximately 30 days. The rest of the year is referred to herein as "normal operations."	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
CONTROL REQUIREMENTS	hdr
Paved Roads During Stockpile Period:  (a) Water flush and vacuum sweep the area spanned from the plant entrance to the truck scale on each active entrance road at least 12 times per calendar day (once per 2-hour period), except as provided below.  (b) Vacuum sweep all other active paved roads at least 2 times per calendar day (once per 12-hour period), except as provided below.  (c) If roads appear visibly wet due to a precipitation event, watering shall be postponed and commence within 2 hours after the precipitation event.  (continued below)	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
Paved Roads During Stockpile Period (continued from above)  d) If roads cannot be watered because the ambient temperature (as measured at the facility during daylight operating hours) is less than 35 degrees F, or conditions due to weather (e.g. frozen ground), in combination with the application of water, could create hazardous driving conditions, then watering shall be postponed and accomplished as soon as the conditions preventing water application have abated.  e) Dust control is not required on days when there is no vehicle traffic. Following any such day, dust control shall commence within 2 hours of commencement of traffic.	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
Beet Storage Pads: Vacuum sweep all active beet storage pads once per calendar day (once per 24-hour period) during the Stockpiling Period.	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
Paved Roads During Normal Operations:  (a) Vacuum sweep the area spanned from the plant entrance to a distance of 600 feet at least 4 times per calendar day (once per 6-hour period), except as provided below.  (b) Vacuum sweep all other active paved roads at least once per calendar day (once per 24-hour period), except as provided below.  (c) If roads appear visibly wet due to a precipitation event, sweeping shall be postponed and commence within 3 hours of the precipitation event.  (d) Dust control is not required on days when there is no vehicle traffic. Following any such day, dust control shall commence within 3 hours of commencement of traffic.	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
Unpaved Roads:  (a) During Normal Operations, the Permittee shall water flush all unpaved road areas at least once per day except for road areas that are not used on a daily basis, which shall be subject to the schedule in item (b).  (b) In general, unpaved roads shall be inspected regularly, and whenever dusty conditions occur during non-freezing conditions, the roads will be watered with a truck equipped with a water tank and spray nozzles. The Permittee will provide a map as part of its Fugitive Control Plan which will show the unpaved roads subject to dust control measures.	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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-74

09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

RECORDKEEPING REQUIREMENTS	hdr
The Permittee shall document the beginning and end dates of the Beet Stockpile or Beet Stockpiling period each year. The first day of the Beet Stockpile or Stockpiling period shall be the first day during the fall harvest period on which trucks begin delivering beets for storage. The last day of the the Beet Stockpile or Stockpiling period shall be the date that the last truck delivers beets for storage. The beginning and end dates shall be documented no later than 5 days after the date of occurrence.	Minn. R. 7007.0800, subp. 5
The Permittee shall keep daily records of dust control measures taken, including the following: (a) The date and time of each dust control measure taken (b) The roads/areas that were watered/swept (c) If water was not applied because of a rainfall event or because of the temperature or other weather conditions, documentation of the event or conditions along with the source of measurement (i.e. on-site rain gauge or thermometer) (d) Records of any watering or sweeping equipment breakdown, and records of contingency efforts undertaken (e) Crew supervisor initials	Minn. R. 7007.0800, subp. 5

**TABLE B: SUBMITTALS**

B-1 09/22/09

Facility Name: American Crystal Sugar - E Grand Forks  
Permit Number: 11900002 - 005

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:

Mr. George Czerniak  
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:

AQ Permit Technical Advisor  
Industrial Division  
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 Technical Advisor 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 09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

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 the Actual Date of Initial Startup	due 15 days after Initial Startup	EU035, EU036, EU037, EU038
PEMS Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after PEMS Relative Accuracy Test Audit (RATA)	EU017
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12-month, 36-month, or 60-month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU035, EU036, EU037, EU038
Testing Frequency Plan	due 60 days after Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU013, EU016



**TABLE B: RECURRENT SUBMITTALS**

B-3 09/22/09

Facility Name: American Crystal Sugar - E Grand Forks

Permit Number: 11900002 - 005

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which the COMS calibration error audit was completed.	MR009, MR010
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a CGA for NOX was conducted.	MR001, MR004
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a CGA for SO2 was conducted.	MR001, MR004
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter starting 06/02/2000 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. Excess emission reports are required for each COMS and CEMS at a facility.	Total Facility
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a RATA for NOX was conducted.	MR001, MR004
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance in which a RATA for SO2 was conducted.	MR001, MR004
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 06/02/2000. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 06/02/2000 (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

**APPENDIX B – Modeled Emission Rates and Stack Parameters**

**Facility Name:** American Crystal Sugar - East Grand Forks

**Permit Number:** 11900002-005

**Table B.1 American Crystal Sugar – East Grand Forks Facility Point Source Stack Parameters**

The following point source parameters reflect the conditions modeled to show compliance with PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, and CO NAAQS. Changes to any of these parameters may trigger remodeling and/or a permit amendment. For details, see Table A of the permit, Subject Item: Total Facility.

Modeled Stack I.D.	Associated Emission Units	Easting (m)	Northing (m)	Stack Ht. (m)	Temp (k)	Exit Vel. (m/s)	Exit Flow. (acfm)	Stack Dia. (m)	PM <sub>10</sub> (g/s)	PM <sub>10</sub> (lb/hr)	NO <sub>x</sub> (g/s)	NO <sub>x</sub> (lb/hr)	SO <sub>2</sub> (g/s)	SO <sub>2</sub> (lb/hr)	CO (g/s)	CO (lb/hr)
SV001	EU001	200786.4	5315911.0	52.27	482.0	13.38	165669	2.73	3.15	25.0	28.7	227.9	49.3	391.8	11.9	94.7
SV002	EU002	200785.7	5315895.0	52.27	482.0	13.38	165669	2.73	3.15	25.0	28.7	227.9	49.3	391.8	11.9	94.7
SV003	EU003, EU032	200785.7	5316058.0	45.72	383.2	27.29	67500	1.22	3.53	28.0	0.6	4.76	0.004	0.03	0.49	3.9
SV004	EU004, EU033	200751.6	5316059.0	45.72	391.5	17.46	67500	1.52	3.53	28.0	0.69	5.48	0.0040	0.03	0.56	4.4
SV005	EU005, EU034	200741.4	5316059.0	45.72	383.2	27.29	67500	1.22	3.53	28.0	0.6	4.76	0.004	0.03	0.49	3.9
SV006	EU006	200781.6	5316066.5	16.61	308.2	24.25	15000	0.61	0.06	0.5						
SV007	EU006	200785.7	5316066.5	16.61	308.2	24.25	15000	0.61	0.06	0.5						
SV008	EU007	200754.8	5316149.0	8.38	294.3	17.10	10900	0.62	0.24	1.89						
SV009	EU008, EU009	200780.0	5316012.5	33.53	315.9	9.08	4244	0.53	0.55	4.36	4.3	34.14	3.4	27.00	1.21	9.6
SV010	EU010, EU011	200780.0	5316020.0	33.53	322.0	5.50	6154	0.82	0.61	4.82						
SV011	EU012	200733.2	5315926.5	33.53	308.2	8.08	3197	0.49	0.13	1.0						
SV012	EU013	200744.8	5315926.0	33.53	297.0	6.67	2640	0.49	0.01	0.11						
SV013	EU014	200693.9	5315936.0	33.53	304.3	14.69	14200	0.76	0.15	1.20						
SV014	EU015	200700.0	5315936.5	33.53	357.6	16.22	15671	0.76	0.07	0.59						
SV015	EU016	200705.6	5315935.0	25.94	340.8	9.21	2050	0.37	0.14	1.14						
SV016	EU017	200775.1	5315927.5	42.67	449.8	17.30	65550	1.51	0.13	1.0	1.89	15.0	0.02	0.159	2.0	16.0
SV017	EU018	200687.1	5316196.0	5.49	999.8	1.30	18195	2.90	0.02	0.16	1.36	10.80	0.0009	0.01	2.52	20.0
SV021	EU022	200717.6	5315874.5	10.77	293.2	13.12	6000	0.52	0.32	2.57						
SV022	EU023	200714.9	5315857.0	12.07	293.2	30.57	1000	0.14	0.11	0.86						
SV023	EU024	200633.8	5315914.0	5.49	293.2	3.71	1000	0.40	0.11	0.86						
SV024	EU025	200628.7	5315912.0	5.72	293.2	3.71	1000	0.40	0.11	0.86						
SV025	EU026	200713.1	5315928.0	12.19	294.3	0.001	NA	0.61	0.01	0.10						
SV031	EU031	200790.5	5316181.5	13.98	294.3	15.54	10000	0.62	0.22	1.71						
SV032	EU035	200707.7	5315935.0	25.30	294.3	12.94	8000	0.61	0.04	0.32						
SV033	EU036	200742.1	5315866.0	24.38	294.3	0.001	NA	0.71	0.07	0.56						
SV034	EU037	200715.6	5315868.0	4.57	294.3	12.75	6600	0.56	0.04	0.32						
SV035	EU038	200745.9	5315864.0	11.58	294.3	13.52	7000	0.56	0.04	0.32						

**Table B.2 American Crystal Sugar – East Grand Forks Facility Volume Source Modeled Parameters**

The following volume source parameters reflect the conditions modeled to show compliance with PM<sub>10</sub> NAAQS. Changes to any of these parameters may trigger remodeling and/or a permit amendment. For details, see Table A of the permit, Subject Item: Total Facility.

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP001	Facility Paved Road ≤15 mph	200830.0	5315605.5	2.438	5.670	2.438	1.0 (u)
ACERP002	Facility Paved Road ≤15 mph	200830.5	5315616.5	2.438	5.670	2.438	1.0 (u)
ACERP003	Facility Paved Road ≤15 mph	200831.0	5315629.0	2.438	5.670	2.438	1.0 (u)
ACERP004	Facility Paved Road ≤15 mph	200831.0	5315641.0	2.438	5.670	2.438	1.0 (u)
ACERP005	Facility Paved Road ≤15 mph	200831.5	5315653.5	2.438	5.670	2.438	1.0 (u)
ACERP006	Facility Paved Road ≤15 mph	200832.2	5315665.5	2.438	5.670	2.438	1.0 (u)
ACERP007	Facility Paved Road ≤15 mph	200832.5	5315677.5	2.438	5.670	2.438	1.0 (u)
ACERP008	Facility Paved Road ≤15 mph	200833.0	5315690.0	2.438	5.670	2.438	1.0 (u)
ACERP009	Facility Paved Road ≤15 mph	200834.0	5315702.0	2.438	5.670	2.438	1.0 (u)
ACERP010	Facility Paved Road ≤15 mph	200835.0	5315714.5	2.438	5.670	2.438	1.0 (u)
ACERP011	Facility Paved Road ≤15 mph	200836.0	5315726.5	2.438	5.670	2.438	1.0 (u)
ACERP012	Facility Paved Road ≤15 mph	200837.0	5315738.5	2.438	5.670	2.438	1.0 (u)
ACERP013	Facility Paved Road ≤15 mph	200838.0	5315751.0	2.438	5.670	2.438	1.0 (u)
ACERP014	Facility Paved Road ≤15 mph	200840.0	5315763.0	2.438	5.670	2.438	1.0 (u)
ACERP015	Facility Paved Road ≤15 mph	200845.8	5315775.5	2.438	5.670	2.438	1.0 (u)
ACERP016	Facility Paved Road ≤15 mph	200853.0	5315787.5	2.438	5.670	2.438	1.0 (u)
ACERP017	Facility Paved Road ≤15 mph	200860.0	5315799.5	2.438	5.670	2.438	1.0 (u)
ACERP018	Facility Paved Road ≤15 mph	200867.0	5315812.0	2.438	5.670	2.438	1.0 (u)
ACERP019	Facility Paved Road ≤15 mph	200873.5	5315824.0	2.438	5.670	2.438	1.0 (u)
ACERP020	Facility Paved Road ≤15 mph	200880.5	5315836.5	2.438	5.670	2.438	1.0 (u)
ACERP021	Facility Paved Road ≤15 mph	200887.9	5315848.5	2.438	5.670	2.438	1.0 (u)
ACERP022	Facility Paved Road ≤15 mph	200894.5	5315860.5	2.438	5.670	2.438	1.0 (u)
ACERP023	Facility Paved Road ≤15 mph	200901.0	5315873.0	2.438	5.670	2.438	1.0 (u)
ACERP024	Facility Paved Road ≤15 mph	200908.0	5315885.0	2.438	5.670	2.438	1.0 (u)
ACERP025	Facility Paved Road ≤15 mph	200920.2	5315892.5	2.438	5.670	2.438	1.0 (u)
ACERP026	Facility Paved Road ≤15 mph	200828.0	5315769.0	2.438	5.670	2.438	1.0 (u)
ACERP027	Facility Paved Road ≤15 mph	200816.1	5315771.0	2.438	5.670	2.438	1.0 (u)
ACERP028	Facility Paved Road ≤15 mph	200803.2	5315773.5	2.438	5.670	2.438	1.0 (u)
ACERP029	Facility Paved Road ≤15 mph	200791.0	5315776.0	2.438	5.670	2.438	1.0 (u)
ACERP030	Facility Paved Road ≤15 mph	200779.1	5315776.0	2.438	5.670	2.438	1.0 (u)
ACERP031	Facility Paved Road ≤15 mph	200767.2	5315776.5	2.438	5.670	2.438	1.0 (u)
ACERP032	Facility Paved Road ≤15 mph	200764.2	5315788.5	2.438	5.670	2.438	1.0 (u)
ACERP033	Facility Paved Road ≤15 mph	200764.2	5315801.0	2.438	5.670	2.438	1.0 (u)
ACERP034	Facility Paved Road ≤15 mph	200764.2	5315813.0	2.438	5.670	2.438	1.0 (u)
ACERP035	Facility Paved Road ≤15 mph	200764.2	5315825.5	2.438	5.670	2.438	1.0 (u)
ACERP036	Facility Paved Road ≤15 mph	200764.2	5315837.5	2.438	5.670	2.438	1.0 (u)
ACERP037	Facility Paved Road ≤15 mph	200764.2	5315849.5	2.438	5.670	2.438	1.0 (u)
ACERP038	Facility Paved Road ≤15 mph	200764.2	5315862.0	2.438	5.670	2.438	1.0 (u)

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP039	Facility Paved Road ≤15 mph	200764.2	5315874.0	2.438	5.670	2.438	1.0 (u)
ACERP040	Facility Paved Beet Pad ≤15 mph	200918.0	5315876.5	2.438	9.300	2.438	1.0 (u)
ACERP041	Facility Paved Beet Pad ≤15 mph	200917.0	5315856.5	2.438	9.300	2.438	1.0 (u)
ACERP042	Facility Paved Beet Pad ≤15 mph	200916.0	5315836.5	2.438	9.300	2.438	1.0 (u)
ACERP043	Facility Paved Beet Pad ≤15 mph	200915.0	5315816.5	2.438	9.300	2.438	1.0 (u)
ACERP044	Facility Paved Beet Pad ≤15 mph	200914.0	5315796.5	2.438	9.300	2.438	1.0 (u)
ACERP045	Facility Paved Beet Pad ≤15 mph	200913.0	5315776.5	2.438	9.300	2.438	1.0 (u)
ACERP046	Facility Paved Beet Pad ≤15 mph	200912.0	5315756.5	2.438	9.300	2.438	1.0 (u)
ACERP047	Facility Paved Beet Pad ≤15 mph	200911.0	5315736.5	2.438	9.300	2.438	1.0 (u)
ACERP048	Facility Paved Beet Pad ≤15 mph	200910.0	5315716.5	2.438	9.300	2.438	1.0 (u)
ACERP049	Facility Paved Beet Pad ≤15 mph	200909.0	5315696.5	2.438	9.300	2.438	1.0 (u)
ACERP050	Facility Paved Beet Pad ≤15 mph	200908.5	5315676.5	2.438	9.300	2.438	1.0 (u)
ACERP051	Facility Paved Beet Pad ≤15 mph	200907.5	5315656.5	2.438	9.300	2.438	1.0 (u)
ACERP052	Facility Paved Beet Pad ≤15 mph	200906.5	5315636.5	2.438	9.300	2.438	1.0 (u)
ACERP053	Facility Paved Beet Pad ≤15 mph	200905.5	5315616.5	2.438	9.300	2.438	1.0 (u)
ACERP054	Facility Paved Road ≤15 mph	200932.2	5315893.5	2.438	5.670	2.438	1.0 (u)
ACERP055	Facility Paved Road ≤15 mph	200944.4	5315894.0	2.438	5.670	2.438	1.0 (u)
ACERP056	Facility Paved Road ≤15 mph	200956.6	5315894.0	2.438	5.670	2.438	1.0 (u)
ACERP057	Facility Paved Road ≤15 mph	200968.8	5315893.5	2.438	5.670	2.438	1.0 (u)
ACERP058	Facility Paved Road ≤15 mph	200981.0	5315893.0	2.438	5.670	2.438	1.0 (u)
ACERP059	Facility Paved Road ≤15 mph	200993.2	5315892.5	2.438	5.670	2.438	1.0 (u)
ACERP060	Facility Paved Road ≤15 mph	201005.4	5315892.0	2.438	5.670	2.438	1.0 (u)
ACERP061	Facility Paved Road ≤15 mph	201017.6	5315891.5	2.438	5.670	2.438	1.0 (u)
ACERP062	Facility Paved Road ≤15 mph	201029.8	5315891.0	2.438	5.670	2.438	1.0 (u)
ACERP063	Facility Paved Road ≤15 mph	201042.0	5315890.5	2.438	5.670	2.438	1.0 (u)
ACERP064	Facility Paved Road ≤15 mph	201054.2	5315890.0	2.438	5.670	2.438	1.0 (u)
ACERP065	Facility Paved Road ≤15 mph	201066.4	5315889.5	2.438	5.670	2.438	1.0 (u)
ACERP066	Facility Paved Road ≤15 mph	201078.6	5315889.0	2.438	5.670	2.438	1.0 (u)
ACERP067	Facility Paved Road ≤15 mph	201090.8	5315888.5	2.438	5.670	2.438	1.0 (u)
ACERP068	Facility Paved Beet Pad ≤15 mph	201007.0	5315875.5	2.438	9.300	2.438	1.0 (u)
ACERP069	Facility Paved Beet Pad ≤15 mph	201006.0	5315855.5	2.438	9.300	2.438	1.0 (u)
ACERP070	Facility Paved Beet Pad ≤15 mph	201005.0	5315835.5	2.438	9.300	2.438	1.0 (u)
ACERP071	Facility Paved Beet Pad ≤15 mph	201004.0	5315815.5	2.438	9.300	2.438	1.0 (u)
ACERP072	Facility Paved Beet Pad ≤15 mph	201003.0	5315795.5	2.438	9.300	2.438	1.0 (u)
ACERP073	Facility Paved Beet Pad ≤15 mph	201002.0	5315775.5	2.438	9.300	2.438	1.0 (u)
ACERP074	Facility Paved Beet Pad ≤15 mph	201001.0	5315755.5	2.438	9.300	2.438	1.0 (u)
ACERP075	Facility Paved Beet Pad ≤15 mph	201000.0	5315735.5	2.438	9.300	2.438	1.0 (u)
ACERP076	Facility Paved Beet Pad ≤15 mph	200999.0	5315715.5	2.438	9.300	2.438	1.0 (u)
ACERP077	Facility Paved Beet Pad ≤15 mph	201085.0	5315872.5	2.438	9.300	2.438	1.0 (u)
ACERP078	Facility Paved Beet Pad ≤15 mph	201084.0	5315852.5	2.438	9.300	2.438	1.0 (u)
ACERP079	Facility Paved Beet Pad ≤15 mph	201083.0	5315832.5	2.438	9.300	2.438	1.0 (u)
ACERP080	Facility Paved Beet Pad ≤15 mph	201082.0	5315812.5	2.438	9.300	2.438	1.0 (u)
ACERP081	Facility Paved Beet Pad ≤15 mph	201081.0	5315792.5	2.438	9.300	2.438	1.0 (u)
ACERP082	Facility Paved Beet Pad ≤15 mph	201080.0	5315772.5	2.438	9.300	2.438	1.0 (u)

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP083	Facility Paved Beet Pad ≤15 mph	201079.0	5315752.5	2.438	9.300	2.438	1.0 (u)
ACERP084	Facility Paved Beet Pad ≤15 mph	201078.0	5315732.5	2.438	9.300	2.438	1.0 (u)
ACERP085	Facility Paved Beet Pad ≤15 mph	201077.0	5315712.5	2.438	9.300	2.438	1.0 (u)
ACERP086	Facility Paved Beet Pad ≤15 mph	201076.0	5315692.5	2.438	9.300	2.438	1.0 (u)
ACERP087	Facility Paved Beet Pad ≤15 mph	201075.0	5315672.5	2.438	9.300	2.438	1.0 (u)
ACERP088	Facility Paved Beet Pad ≤15 mph	201074.0	5315652.5	2.438	9.300	2.438	1.0 (u)
ACERP089	Facility Paved Beet Pad ≤15 mph	201073.0	5315632.5	2.438	9.300	2.438	1.0 (u)
ACERP090	Facility Paved Beet Pad ≤15 mph	201072.0	5315612.5	2.438	9.300	2.438	1.0 (u)
ACERP091	Facility Paved Beet Pad ≤15 mph	201071.0	5315592.5	2.438	9.300	2.438	1.0 (u)
ACERP092	Facility Paved Beet Pad ≤15 mph	201070.0	5315572.5	2.438	9.300	2.438	1.0 (u)
ACERP093	Facility Paved Beet Pad ≤15 mph	201069.0	5315552.5	2.438	9.300	2.438	1.0 (u)
ACERP094	Facility Paved Beet Pad ≤15 mph	201068.0	5315532.5	2.438	9.300	2.438	1.0 (u)
ACERP095	Facility Paved Beet Pad ≤15 mph	201067.0	5315512.5	2.438	9.300	2.438	1.0 (u)
ACERP096	Facility Paved Road ≤15 mph	201103.0	5315887.5	2.438	5.670	2.438	1.0 (u)
ACERP097	Facility Paved Road ≤15 mph	201115.2	5315887.0	2.438	5.670	2.438	1.0 (u)
ACERP098	Facility Paved Road ≤15 mph	201127.4	5315886.5	2.438	5.670	2.438	1.0 (u)
ACERP099	Facility Paved Road ≤15 mph	201139.6	5315886.0	2.438	5.670	2.438	1.0 (u)
ACERP100	Facility Paved Road ≤15 mph	201151.8	5315885.5	2.438	5.670	2.438	1.0 (u)
ACERP101	Facility Paved Road ≤15 mph	201164.0	5315885.0	2.438	5.670	2.438	1.0 (u)
ACERP102	Facility Paved Road ≤15 mph	201176.2	5315884.5	2.438	5.670	2.438	1.0 (u)
ACERP103	Facility Paved Road ≤15 mph	201188.4	5315884.0	2.438	5.670	2.438	1.0 (u)
ACERP104	Facility Paved Road ≤15 mph	201200.6	5315883.5	2.438	5.670	2.438	1.0 (u)
ACERP105	Facility Paved Road ≤15 mph	201212.8	5315883.0	2.438	5.670	2.438	1.0 (u)
ACERP106	Facility Paved Road ≤15 mph	201225.0	5315882.5	2.438	5.670	2.438	1.0 (u)
ACERP107	Facility Paved Road ≤15 mph	201237.2	5315882.0	2.438	5.670	2.438	1.0 (u)
ACERP108	Facility Paved Road ≤15 mph	201249.4	5315881.5	2.438	5.670	2.438	1.0 (u)
ACERP109	Facility Paved Road ≤15 mph	201261.6	5315881.0	2.438	5.670	2.438	1.0 (u)
ACERP110	Facility Paved Road ≤15 mph	201273.8	5315880.5	2.438	5.670	2.438	1.0 (u)
ACERP111	Facility Paved Road ≤15 mph	201286.0	5315880.0	2.438	5.670	2.438	1.0 (u)
ACERP112	Facility Paved Road ≤15 mph	201298.2	5315879.5	2.438	5.670	2.438	1.0 (u)
ACERP113	Facility Paved Road ≤15 mph	201310.4	5315879.0	2.438	5.670	2.438	1.0 (u)
ACERP114	Facility Paved Road ≤15 mph	201322.6	5315878.5	2.438	5.670	2.438	1.0 (u)
ACERP115	Facility Paved Beet Pad ≤15 mph	201162.0	5315868.5	2.438	9.300	2.438	1.0 (u)
ACERP116	Facility Paved Beet Pad ≤15 mph	201161.5	5315848.5	2.438	9.300	2.438	1.0 (u)
ACERP117	Facility Paved Beet Pad ≤15 mph	201160.0	5315828.5	2.438	9.300	2.438	1.0 (u)
ACERP118	Facility Paved Beet Pad ≤15 mph	201159.5	5315808.5	2.438	9.300	2.438	1.0 (u)
ACERP119	Facility Paved Beet Pad ≤15 mph	201159.0	5315788.5	2.438	9.300	2.438	1.0 (u)
ACERP120	Facility Paved Beet Pad ≤15 mph	201158.5	5315768.5	2.438	9.300	2.438	1.0 (u)
ACERP121	Facility Paved Beet Pad ≤15 mph	201158.0	5315748.5	2.438	9.300	2.438	1.0 (u)
ACERP122	Facility Paved Beet Pad ≤15 mph	201157.5	5315728.5	2.438	9.300	2.438	1.0 (u)
ACERP123	Facility Paved Beet Pad ≤15 mph	201157.0	5315708.5	2.438	9.300	2.438	1.0 (u)
ACERP124	Facility Paved Beet Pad ≤15 mph	201156.0	5315688.5	2.438	9.300	2.438	1.0 (u)
ACERP125	Facility Paved Beet Pad ≤15 mph	201155.0	5315668.5	2.438	9.300	2.438	1.0 (u)
ACERP126	Facility Paved Beet Pad ≤15 mph	201154.0	5315648.5	2.438	9.300	2.438	1.0 (u)

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP127	Facility Paved Beet Pad ≤15 mph	201153.0	5315628.5	2.438	9.300	2.438	1.0 (u)
ACERP128	Facility Paved Beet Pad ≤15 mph	201152.0	5315608.5	2.438	9.300	2.438	1.0 (u)
ACERP129	Facility Paved Beet Pad ≤15 mph	201151.0	5315588.5	2.438	9.300	2.438	1.0 (u)
ACERP130	Facility Paved Beet Pad ≤15 mph	201150.0	5315568.5	2.438	9.300	2.438	1.0 (u)
ACERP131	Facility Paved Beet Pad ≤15 mph	201149.0	5315548.5	2.438	9.300	2.438	1.0 (u)
ACERP132	Facility Paved Beet Pad ≤15 mph	201148.0	5315528.5	2.438	9.300	2.438	1.0 (u)
ACERP133	Facility Paved Beet Pad ≤15 mph	201147.0	5315508.5	2.438	9.300	2.438	1.0 (u)
ACERP134	Facility Paved Beet Pad ≤15 mph	201261.0	5315864.5	2.438	9.300	2.438	1.0 (u)
ACERP135	Facility Paved Beet Pad ≤15 mph	201260.5	5315844.5	2.438	9.300	2.438	1.0 (u)
ACERP136	Facility Paved Beet Pad ≤15 mph	201260.0	5315824.5	2.438	9.300	2.438	1.0 (u)
ACERP137	Facility Paved Beet Pad ≤15 mph	201259.5	5315804.5	2.438	9.300	2.438	1.0 (u)
ACERP138	Facility Paved Beet Pad ≤15 mph	201259.0	5315784.5	2.438	9.300	2.438	1.0 (u)
ACERP139	Facility Paved Beet Pad ≤15 mph	201258.5	5315764.5	2.438	9.300	2.438	1.0 (u)
ACERP140	Facility Paved Beet Pad ≤15 mph	201258.0	5315744.5	2.438	9.300	2.438	1.0 (u)
ACERP141	Facility Paved Beet Pad ≤15 mph	201257.5	5315724.5	2.438	9.300	2.438	1.0 (u)
ACERP142	Facility Paved Beet Pad ≤15 mph	201257.0	5315704.5	2.438	9.300	2.438	1.0 (u)
ACERP143	Facility Paved Beet Pad ≤15 mph	201256.5	5315684.5	2.438	9.300	2.438	1.0 (u)
ACERP144	Facility Paved Beet Pad ≤15 mph	201256.0	5315664.5	2.438	9.300	2.438	1.0 (u)
ACERP145	Facility Paved Beet Pad ≤15 mph	201255.5	5315644.5	2.438	9.300	2.438	1.0 (u)
ACERP146	Facility Paved Beet Pad ≤15 mph	201254.5	5315624.5	2.438	9.300	2.438	1.0 (u)
ACERP147	Facility Paved Beet Pad ≤15 mph	201254.0	5315604.5	2.438	9.300	2.438	1.0 (u)
ACERP148	Facility Paved Beet Pad ≤15 mph	201253.0	5315584.5	2.438	9.300	2.438	1.0 (u)
ACERP149	Facility Paved Beet Pad ≤15 mph	201252.0	5315564.5	2.438	9.300	2.438	1.0 (u)
ACERP150	Facility Paved Beet Pad ≤15 mph	201251.0	5315544.5	2.438	9.300	2.438	1.0 (u)
ACERP151	Facility Paved Beet Pad ≤15 mph	201250.0	5315524.5	2.438	9.300	2.438	1.0 (u)
ACERP152	Facility Paved Beet Pad ≤15 mph	201249.0	5315504.5	2.438	9.300	2.438	1.0 (u)
ACERP153	Facility Paved Road ≤15 mph	201305.8	5315337.0	2.438	5.670	2.438	1.0 (u)
ACERP154	Facility Paved Road ≤15 mph	201306.0	5315349.5	2.438	5.670	2.438	1.0 (u)
ACERP155	Facility Paved Road ≤15 mph	201306.5	5315361.5	2.438	5.670	2.438	1.0 (u)
ACERP156	Facility Paved Road ≤15 mph	201307.0	5315374.0	2.438	5.670	2.438	1.0 (u)
ACERP157	Facility Paved Road ≤15 mph	201307.5	5315386.0	2.438	5.670	2.438	1.0 (u)
ACERP158	Facility Paved Road ≤15 mph	201308.0	5315398.0	2.438	5.670	2.438	1.0 (u)
ACERP159	Facility Paved Road ≤15 mph	201308.5	5315410.5	2.438	5.670	2.438	1.0 (u)
ACERP160	Facility Paved Road ≤15 mph	201309.0	5315422.5	2.438	5.670	2.438	1.0 (u)
ACERP161	Facility Paved Road ≤15 mph	201309.5	5315435.0	2.438	5.670	2.438	1.0 (u)
ACERP162	Facility Paved Road ≤15 mph	201310.0	5315447.0	2.438	5.670	2.438	1.0 (u)
ACERP163	Facility Paved Road ≤15 mph	201310.5	5315459.0	2.438	5.670	2.438	1.0 (u)
ACERP164	Facility Paved Road ≤15 mph	201311.0	5315471.5	2.438	5.670	2.438	1.0 (u)
ACERP165	Facility Paved Road ≤15 mph	201311.5	5315483.5	2.438	5.670	2.438	1.0 (u)
ACERP166	Facility Paved Road ≤15 mph	201312.0	5315496.0	2.438	5.670	2.438	1.0 (u)
ACERP167	Facility Paved Road ≤15 mph	201312.5	5315508.0	2.438	5.670	2.438	1.0 (u)
ACERP168	Facility Paved Road ≤15 mph	201313.0	5315520.0	2.438	5.670	2.438	1.0 (u)
ACERP169	Facility Paved Road ≤15 mph	201313.5	5315532.5	2.438	5.670	2.438	1.0 (u)
ACERP170	Facility Paved Road ≤15 mph	201314.0	5315544.5	2.438	5.670	2.438	1.0 (u)

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP171	Facility Paved Road ≤15 mph	201314.5	5315557.0	2.438	5.670	2.438	1.0 (u)
ACERP172	Facility Paved Road ≤15 mph	201315.0	5315569.0	2.438	5.670	2.438	1.0 (u)
ACERP173	Facility Paved Road ≤15 mph	201315.5	5315581.0	2.438	5.670	2.438	1.0 (u)
ACERP174	Facility Paved Road ≤15 mph	201316.0	5315593.5	2.438	5.670	2.438	1.0 (u)
ACERP175	Facility Paved Road ≤15 mph	201316.5	5315605.5	2.438	5.670	2.438	1.0 (u)
ACERP176	Facility Paved Road ≤15 mph	201317.0	5315617.5	2.438	5.670	2.438	1.0 (u)
ACERP177	Facility Paved Road ≤15 mph	201317.5	5315630.0	2.438	5.670	2.438	1.0 (u)
ACERP178	Facility Paved Road ≤15 mph	201329.7	5315630.0	2.438	5.670	2.438	1.0 (u)
ACERP179	Facility Paved Road ≤15 mph	201341.9	5315630.0	2.438	5.670	2.438	1.0 (u)
ACERP180	Facility Paved Road ≤15 mph	201354.1	5315630.0	2.438	5.670	2.438	1.0 (u)
ACERP181	Facility Paved Road ≤15 mph	201366.3	5315630.0	2.438	5.670	2.438	1.0 (u)
ACERP182	Facility Paved Road ≤15 mph	201320.5	5315642.0	2.438	5.670	2.438	1.0 (u)
ACERP183	Facility Paved Road ≤15 mph	201321.0	5315654.0	2.438	5.670	2.438	1.0 (u)
ACERP184	Facility Paved Road ≤15 mph	201321.5	5315666.5	2.438	5.670	2.438	1.0 (u)
ACERP185	Facility Paved Road ≤15 mph	201322.0	5315678.5	2.438	5.670	2.438	1.0 (u)
ACERP186	Facility Paved Road ≤15 mph	201322.5	5315691.0	2.438	5.670	2.438	1.0 (u)
ACERP187	Facility Paved Road ≤15 mph	201323.0	5315703.0	2.438	5.670	2.438	1.0 (u)
ACERP188	Facility Paved Road ≤15 mph	201323.5	5315715.0	2.438	5.670	2.438	1.0 (u)
ACERP189	Facility Paved Road ≤15 mph	201324.0	5315727.5	2.438	5.670	2.438	1.0 (u)
ACERP190	Facility Paved Road ≤15 mph	201324.5	5315739.5	2.438	5.670	2.438	1.0 (u)
ACERP191	Facility Paved Road ≤15 mph	201325.0	5315752.0	2.438	5.670	2.438	1.0 (u)
ACERP192	Facility Paved Road ≤15 mph	201325.5	5315764.0	2.438	5.670	2.438	1.0 (u)
ACERP193	Facility Paved Road ≤15 mph	201326.0	5315776.0	2.438	5.670	2.438	1.0 (u)
ACERP194	Facility Paved Road ≤15 mph	201326.5	5315788.5	2.438	5.670	2.438	1.0 (u)
ACERP195	Facility Paved Road ≤15 mph	201327.0	5315800.5	2.438	5.670	2.438	1.0 (u)
ACERP196	Facility Paved Road ≤15 mph	201327.5	5315813.0	2.438	5.670	2.438	1.0 (u)
ACERP197	Facility Paved Road ≤15 mph	201328.0	5315825.0	2.438	5.670	2.438	1.0 (u)
ACERP198	Facility Paved Road ≤15 mph	201328.5	5315837.0	2.438	5.670	2.438	1.0 (u)
ACERP199	Facility Paved Road ≤15 mph	201329.0	5315849.5	2.438	5.670	2.438	1.0 (u)
ACERP200	Facility Paved Road ≤15 mph	201329.5	5315861.5	2.438	5.670	2.438	1.0 (u)
ACERP210	Facility Paved Road ≤15 mph	201330.0	5315874.0	2.438	5.670	2.438	1.0 (u)
ACERP202	Facility Paved Road ≤15 mph	201334.8	5315878.0	2.438	5.670	2.438	1.0 (u)
ACERP203	Facility Paved Road ≤15 mph	201347.0	5315877.5	2.438	5.670	2.438	1.0 (u)
ACERP204	Facility Paved Road ≤15 mph	201359.2	5315877.0	2.438	5.670	2.438	1.0 (u)
ACERP205	Facility Paved Road ≤15 mph	201371.4	5315876.5	2.438	5.670	2.438	1.0 (u)
ACERP206	Facility Paved Road ≤15 mph	201383.6	5315876.0	2.438	5.670	2.438	1.0 (u)
ACERP207	Facility Paved Beet Pad ≤15 mph	201402.0	5315920.0	2.438	9.300	2.438	1.0 (u)
ACERP208	Facility Paved Beet Pad ≤15 mph	201401.0	5315900.0	2.438	9.300	2.438	1.0 (u)
ACERP209	Facility Paved Beet Pad ≤15 mph	201400.0	5315880.0	2.438	9.300	2.438	1.0 (u)
ACERP210	Facility Paved Beet Pad ≤15 mph	201399.0	5315860.0	2.438	9.300	2.438	1.0 (u)
ACERP211	Facility Paved Beet Pad ≤15 mph	201398.0	5315840.0	2.438	9.300	2.438	1.0 (u)
ACERP212	Facility Paved Beet Pad ≤15 mph	201397.0	5315820.0	2.438	9.300	2.438	1.0 (u)
ACERP213	Facility Paved Beet Pad ≤15 mph	201396.0	5315800.0	2.438	9.300	2.438	1.0 (u)
ACERP214	Facility Paved Beet Pad ≤15 mph	201395.0	5315780.0	2.438	9.300	2.438	1.0 (u)

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP215	Facility Paved Beet Pad ≤15 mph	201394.0	5315760.0	2.438	9.300	2.438	1.0 (u)
ACERP216	Facility Paved Beet Pad ≤15 mph	201393.0	5315740.0	2.438	9.300	2.438	1.0 (u)
ACERP217	Facility Paved Beet Pad ≤15 mph	201392.0	5315720.0	2.438	9.300	2.438	1.0 (u)
ACERP218	Facility Paved Beet Pad ≤15 mph	201391.0	5315700.0	2.438	9.300	2.438	1.0 (u)
ACERP219	Facility Paved Beet Pad ≤15 mph	201390.0	5315680.0	2.438	9.300	2.438	1.0 (u)
ACERP220	Facility Paved Beet Pad ≤15 mph	201389.0	5315660.0	2.438	9.300	2.438	1.0 (u)
ACERP221	Facility Paved Beet Pad ≤15 mph	201388.0	5315640.0	2.438	9.300	2.438	1.0 (u)
ACERP222	Facility Paved Beet Pad ≤15 mph	201387.0	5315620.0	2.438	9.300	2.438	1.0 (u)
ACERP223	Facility Paved Beet Pad ≤15 mph	201386.0	5315600.0	2.438	9.300	2.438	1.0 (u)
ACERP224	Facility Paved Beet Pad ≤15 mph	201385.0	5315580.0	2.438	9.300	2.438	1.0 (u)
ACERP225	Facility Paved Beet Pad ≤15 mph	201384.0	5315560.0	2.438	9.300	2.438	1.0 (u)
ACERP226	Facility Paved Beet Pad ≤15 mph	201383.0	5315540.0	2.438	9.300	2.438	1.0 (u)
ACERP227	Facility Paved Beet Pad ≤15 mph	201382.0	5315520.0	2.438	9.300	2.438	1.0 (u)
ACERP228	Facility Paved Beet Pad ≤15 mph	201381.0	5315500.0	2.438	9.300	2.438	1.0 (u)
ACERP229	Facility Paved Beet Pad ≤15 mph	201380.0	5315480.0	2.438	9.300	2.438	1.0 (u)
ACERP230	Facility Paved Road ≤15 mph	200968.8	5315905.5	2.438	5.670	2.438	1.0 (u)
ACERP231	Facility Paved Road ≤15 mph	200969.0	5315918.0	2.438	5.670	2.438	1.0 (u)
ACERP232	Facility Paved Road ≤15 mph	200969.5	5315930.0	2.438	5.670	2.438	1.0 (u)
ACERP233	Facility Paved Road ≤15 mph	200970.0	5315942.5	2.438	5.670	2.438	1.0 (u)
ACERP234	Facility Paved Road ≤15 mph	200970.5	5315954.5	2.438	5.670	2.438	1.0 (u)
ACERP235	Facility Paved Road ≤15 mph	200971.0	5315966.5	2.438	5.670	2.438	1.0 (u)
ACERP236	Facility Paved Road ≤15 mph	200971.5	5315979.0	2.438	5.670	2.438	1.0 (u)
ACERP237	Facility Paved Road ≤15 mph	200972.0	5315991.0	2.438	5.670	2.438	1.0 (u)
ACERP238	Facility Paved Road ≤15 mph	200972.5	5316003.5	2.438	5.670	2.438	1.0 (u)
ACERP239	Facility Paved Road ≤15 mph	200973.0	5316015.5	2.438	5.670	2.438	1.0 (u)
ACERP240	Facility Paved Road ≤15 mph	201091.0	5315900.5	2.438	5.670	2.438	1.0 (u)
ACERP241	Facility Paved Road ≤15 mph	201091.5	5315913.0	2.438	5.670	2.438	1.0 (u)
ACERP242	Facility Paved Road ≤15 mph	201092.0	5315925.0	2.438	5.670	2.438	1.0 (u)
ACERP243	Facility Paved Road ≤15 mph	201092.5	5315937.5	2.438	5.670	2.438	1.0 (u)
ACERP244	Facility Paved Road ≤15 mph	201093.0	5315949.5	2.438	5.670	2.438	1.0 (u)
ACERP245	Facility Paved Road ≤15 mph	201093.5	5315961.5	2.438	5.670	2.438	1.0 (u)
ACERP246	Facility Paved Road ≤15 mph	201094.0	5315974.0	2.438	5.670	2.438	1.0 (u)
ACERP247	Facility Paved Road ≤15 mph	201094.5	5315986.0	2.438	5.670	2.438	1.0 (u)
ACERP248	Facility Paved Road ≤15 mph	201095.0	5315998.5	2.438	5.670	2.438	1.0 (u)
ACERP249	Facility Paved Beet Pad ≤15 mph	201108.1	5315927.0	2.438	9.300	2.438	1.0 (u)
ACERP250	Facility Paved Beet Pad ≤15 mph	201128.1	5315926.0	2.438	9.300	2.438	1.0 (u)
ACERP251	Facility Paved Beet Pad ≤15 mph	201148.1	5315925.0	2.438	9.300	2.438	1.0 (u)
ACERP252	Facility Paved Beet Pad ≤15 mph	200974.0	5316031.5	2.438	9.300	2.438	1.0 (u)
ACERP253	Facility Paved Beet Pad ≤15 mph	200975.0	5316051.5	2.438	9.300	2.438	1.0 (u)
ACERP254	Facility Paved Beet Pad ≤15 mph	200976.0	5316071.5	2.438	9.300	2.438	1.0 (u)
ACERP255	Facility Paved Beet Pad ≤15 mph	200977.0	5316091.5	2.438	9.300	2.438	1.0 (u)
ACERP256	Facility Paved Beet Pad ≤15 mph	200978.0	5316111.5	2.438	9.300	2.438	1.0 (u)
ACERP257	Facility Paved Beet Pad ≤15 mph	200979.0	5316131.5	2.438	9.300	2.438	1.0 (u)
ACERP258	Facility Paved Beet Pad ≤15 mph	200980.0	5316151.5	2.438	9.300	2.438	1.0 (u)



Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP259	Facility Paved Beet Pad ≤15 mph	200981.0	5316171.5	2.438	9.300	2.438	1.0 (u)
ACERP260	Facility Paved Beet Pad ≤15 mph	200982.0	5316191.5	2.438	9.300	2.438	1.0 (u)
ACERP261	Facility Paved Beet Pad ≤15 mph	200983.0	5316211.5	2.438	9.300	2.438	1.0 (u)
ACERP262	Facility Paved Beet Pad ≤15 mph	200984.0	5316231.5	2.438	9.300	2.438	1.0 (u)
ACERP263	Facility Paved Beet Pad ≤15 mph	200985.0	5316251.5	2.438	9.300	2.438	1.0 (u)
ACERP264	Facility Paved Beet Pad ≤15 mph	200986.0	5316271.5	2.438	9.300	2.438	1.0 (u)
ACERP265	Facility Paved Beet Pad ≤15 mph	200987.0	5316291.5	2.438	9.300	2.438	1.0 (u)
ACERP266	Facility Paved Beet Pad ≤15 mph	200988.0	5316311.5	2.438	9.300	2.438	1.0 (u)
ACERP267	Facility Paved Beet Pad ≤15 mph	200989.0	5316331.5	2.438	9.300	2.438	1.0 (u)
ACERP268	Facility Paved Beet Pad ≤15 mph	200990.0	5316351.5	2.438	9.300	2.438	1.0 (u)
ACERP269	Facility Paved Road ≤15 mph	200985.2	5316015.5	2.438	5.670	2.438	1.0 (u)
ACERP270	Facility Paved Road ≤15 mph	200997.4	5316015.0	2.438	5.670	2.438	1.0 (u)
ACERP271	Facility Paved Road ≤15 mph	201009.6	5316014.5	2.438	5.670	2.438	1.0 (u)
ACERP272	Facility Paved Road ≤15 mph	201021.8	5316014.0	2.438	5.670	2.438	1.0 (u)
ACERP273	Facility Paved Road ≤15 mph	201034.0	5316013.5	2.438	5.670	2.438	1.0 (u)
ACERP274	Facility Paved Road ≤15 mph	201046.2	5316013.0	2.438	5.670	2.438	1.0 (u)
ACERP275	Facility Paved Road ≤15 mph	201058.4	5316012.5	2.438	5.670	2.438	1.0 (u)
ACERP276	Facility Paved Road ≤15 mph	201070.6	5316012.0	2.438	5.670	2.438	1.0 (u)
ACERP277	Facility Paved Road ≤15 mph	201082.8	5316011.5	2.438	5.670	2.438	1.0 (u)
ACERP278	Facility Paved Road ≤15 mph	201090.0	5316008.0	2.438	5.670	2.438	1.0 (u)
ACERP279	Facility Paved Beet Pad ≤15 mph	201065.0	5316028.0	2.438	9.300	2.438	1.0 (u)
ACERP280	Facility Paved Beet Pad ≤15 mph	201066.0	5316048.0	2.438	9.300	2.438	1.0 (u)
ACERP281	Facility Paved Beet Pad ≤15 mph	201067.0	5316068.0	2.438	9.300	2.438	1.0 (u)
ACERP282	Facility Paved Beet Pad ≤15 mph	201068.0	5316088.0	2.438	9.300	2.438	1.0 (u)
ACERP283	Facility Paved Beet Pad ≤15 mph	201069.0	5316108.0	2.438	9.300	2.438	1.0 (u)
ACERP284	Facility Paved Road ≤15 mph	200960.8	5316015.5	2.438	5.670	2.438	1.0 (u)
ACERP285	Facility Paved Road ≤15 mph	200949.1	5316016.5	2.438	5.670	2.438	1.0 (u)
ACERP286	Facility Paved Road ≤15 mph	200936.2	5316017.5	2.438	5.670	2.438	1.0 (u)
ACERP287	Facility Paved Road ≤15 mph	200924.0	5316018.5	2.438	5.670	2.438	1.0 (u)
ACERP288	Facility Paved Road ≤15 mph	200912.0	5316019.5	2.438	5.670	2.438	1.0 (u)
ACERP289	Facility Paved Road ≤15 mph	200900.1	5316021.0	2.438	5.670	2.438	1.0 (u)
ACERP290	Facility Paved Road ≤15 mph	200888.0	5316023.0	2.438	5.670	2.438	1.0 (u)
ACERP291	Facility Paved Road ≤15 mph	200875.0	5316023.5	2.438	5.670	2.438	1.0 (u)
ACERP292	Facility Paved Road ≤15 mph	200863.1	5316025.5	2.438	5.670	2.438	1.0 (u)
ACERP293	Facility Paved Road ≤15 mph	200851.1	5316027.5	2.438	5.670	2.438	1.0 (u)
ACERP294	Facility Paved Road ≤15 mph	200839.2	5316030.5	2.438	5.670	2.438	1.0 (u)
ACERP295	Facility Paved Road ≤15 mph	200905.9	5316031.5	2.438	5.670	2.438	1.0 (u)
ACERP296	Facility Paved Road ≤15 mph	200894.0	5316039.0	2.438	5.670	2.438	1.0 (u)
ACERP297	Facility Paved Road ≤15 mph	200882.9	5316052.0	2.438	5.670	2.438	1.0 (u)
ACERP298	Facility Paved Road ≤15 mph	200870.7	5316066.5	2.438	5.670	2.438	1.0 (u)
ACERP299	Facility Paved Road ≤15 mph	200858.5	5316080.5	2.438	5.670	2.438	1.0 (u)
ACERP300	Facility Paved Road ≤15 mph	200846.2	5316094.0	2.438	5.670	2.438	1.0 (u)
ACERP301	Facility Paved Road ≤15 mph	200834.2	5316104.0	2.438	5.670	2.438	1.0 (u)
ACERP302	Facility Paved Road ≤15 mph	200822.1	5316111.5	2.438	5.670	2.438	1.0 (u)

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERP303	Facility Paved Road ≤15 mph	200810.2	5316122.0	2.438	5.670	2.438	1.0 (u)
ACERP304	Facility Paved Road ≤15 mph	200802.9	5316133.0	2.438	5.670	2.438	1.0 (u)
ACERP305	Facility Paved Road ≤15 mph	200802.9	5316145.0	2.438	5.670	2.438	1.0 (u)
ACERP306	Facility Paved Road ≤15 mph	200803.2	5316157.0	2.438	5.670	2.438	1.0 (u)
ACERP307	Facility Paved Road ≤15 mph	200804.5	5316170.0	2.438	5.670	2.438	1.0 (u)
ACERP308	Facility Paved Road ≤15 mph	200804.2	5316182.0	2.438	5.670	2.438	1.0 (u)
ACERP309	Facility Paved Road ≤15 mph	200804.8	5316194.0	2.438	5.670	2.438	1.0 (u)
ACERP310	Facility Paved Road ≤15 mph	200812.8	5316206.0	2.438	5.670	2.438	1.0 (u)
ACERP311	Facility Paved Road ≤15 mph	200823.3	5316218.0	2.438	5.670	2.438	1.0 (u)
ACERP312	Facility Paved Road ≤15 mph	200834.8	5316231.0	2.438	5.670	2.438	1.0 (u)
ACERP313	Facility Paved Road ≤15 mph	200843.5	5316243.0	2.438	5.670	2.438	1.0 (u)
ACERP314	Facility Paved Road ≤15 mph	200850.7	5316255.0	2.438	5.670	2.438	1.0 (u)
ACERP315	Facility Paved Road ≤15 mph	200857.2	5316267.0	2.438	5.670	2.438	1.0 (u)
ACERP316	Facility Paved Road ≤15 mph	200859.9	5316279.0	2.438	5.670	2.438	1.0 (u)
ACERP317	Facility Paved Road ≤15 mph	200862.3	5316292.0	2.438	5.670	2.438	1.0 (u)
ACERP318	Facility Paved Road ≤15 mph	200864.2	5316304.0	2.438	5.670	2.438	1.0 (u)
ACERP319	Facility Paved Road ≤15 mph	200865.7	5316316.0	2.438	5.670	2.438	1.0 (u)
ACERP320	Facility Paved Road ≤15 mph	200866.3	5316328.0	2.438	5.670	2.438	1.0 (u)
ACERP321	Facility Paved Road ≤15 mph	200867.5	5316340.0	2.438	5.670	2.438	1.0 (u)
ACERU001	Facility Unpaved Roads ≤15 mph	201102.3	5316002.0	2.438	11.35	2.438	1.11E-02
ACERU002	Facility Unpaved Roads ≤15 mph	201126.2	5315993.0	2.438	11.35	2.438	1.11E-02
ACERU003	Facility Unpaved Roads ≤15 mph	201151.1	5315985.5	2.438	11.35	2.438	1.11E-02
ACERU004	Facility Unpaved Roads ≤15 mph	201175.4	5315982.5	2.438	11.35	2.438	1.11E-02
ACERU005	Facility Unpaved Roads ≤15 mph	201200.2	5315981.0	2.438	11.35	2.438	1.11E-02
ACERU006	Facility Unpaved Roads ≤15 mph	201224.0	5315979.5	2.438	11.35	2.438	1.11E-02
ACERU007	Facility Unpaved Roads ≤15 mph	201248.3	5315979.5	2.438	11.35	2.438	1.11E-02
ACERU008	Facility Unpaved Roads ≤15 mph	201273.1	5315977.5	2.438	11.35	2.438	1.11E-02
ACERU009	Facility Unpaved Roads ≤15 mph	201297.4	5315977.0	2.438	11.35	2.438	1.11E-02
ACERU010	Facility Unpaved Roads ≤15 mph	201321.8	5315975.5	2.438	11.35	2.438	1.11E-02
ACERU011	Facility Unpaved Roads ≤15 mph	201346.2	5315975.5	2.438	11.35	2.438	1.11E-02
ACERU012	Facility Unpaved Roads ≤15 mph	201370.6	5315975.5	2.438	11.35	2.438	1.11E-02
ACERU013	Facility Unpaved Roads ≤15 mph	201395.4	5315974.0	2.438	11.35	2.438	1.11E-02
ACERU014	Facility Unpaved Roads ≤15 mph	201419.4	5315972.0	2.438	11.35	2.438	1.11E-02
ACERU015	Facility Unpaved Roads ≤15 mph	201444.0	5315970.5	2.438	11.35	2.438	1.11E-02
ACERU016	Facility Unpaved Roads ≤15 mph	201467.9	5315969.0	2.438	11.35	2.438	1.11E-02
ACERU017	Facility Unpaved Roads ≤15 mph	201493.1	5315967.0	2.438	11.35	2.438	1.11E-02
ACERU018	Facility Unpaved Roads ≤15 mph	201517.1	5315965.5	2.438	11.35	2.438	1.11E-02
ACERU019	Facility Unpaved Roads ≤15 mph	201541.0	5315964.0	2.438	11.35	2.438	1.11E-02
ACERU020	Facility Unpaved Roads ≤15 mph	201566.2	5315962.5	2.438	11.35	2.438	1.11E-02
ACERU021	Facility Unpaved Roads ≤15 mph	201590.2	5315961.5	2.438	11.35	2.438	1.11E-02
ACERU022	Facility Unpaved Roads ≤15 mph	201615.3	5315961.0	2.438	11.35	2.438	1.11E-02
ACERU023	Facility Unpaved Roads ≤15 mph	201639.3	5315958.0	2.438	11.35	2.438	1.11E-02
ACERU024	Facility Unpaved Roads ≤15 mph	201663.3	5315958.0	2.438	11.35	2.438	1.11E-02
ACERU025	Facility Unpaved Roads ≤15 mph	201687.8	5315956.5	2.438	11.35	2.438	1.11E-02

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACERU026	Facility Unpaved Roads ≤15 mph	201712.4	5315955.0	2.438	11.35	2.438	1.11E-02
ACERU027	Facility Unpaved Roads ≤15 mph	201737.0	5315953.5	2.438	11.35	2.438	1.11E-02
ACERU028	Facility Unpaved Roads ≤15 mph	201761.0	5315952.0	2.438	11.35	2.438	1.11E-02
ACERU029	Facility Unpaved Roads ≤15 mph	201784.9	5315951.0	2.438	11.35	2.438	1.11E-02
ACERU030	Facility Unpaved Roads ≤15 mph	201809.4	5315950.0	2.438	11.35	2.438	1.11E-02
ACERU031	Facility Unpaved Roads ≤15 mph	201833.7	5315947.5	2.438	11.35	2.438	1.11E-02
ACERU032	Facility Unpaved Roads ≤15 mph	201858.2	5315946.0	2.438	11.35	2.438	1.11E-02
ACERU033	Facility Unpaved Roads ≤15 mph	201882.4	5315945.5	2.438	11.35	2.438	1.11E-02
ACERU034	Facility Unpaved Roads ≤15 mph	201906.5	5315944.0	2.438	11.35	2.438	1.11E-02
ACERU035	Facility Unpaved Roads ≤15 mph	201931.0	5315943.5	2.438	11.35	2.438	1.11E-02
ACERU036	Facility Unpaved Roads ≤15 mph	201956.0	5315942.0	2.438	11.35	2.438	1.11E-02
ACERU037	Facility Unpaved Roads ≤15 mph	201980.1	5315940.5	2.438	11.35	2.438	1.11E-02
ACERU038	Facility Unpaved Roads ≤15 mph	202005.0	5315940.0	2.438	11.35	2.438	1.11E-02
ACERU039	Facility Unpaved Roads ≤15 mph	202029.1	5315938.5	2.438	11.35	2.438	1.11E-02
ACERU040	Facility Unpaved Roads ≤15 mph	202052.9	5315938.0	2.438	11.35	2.438	1.11E-02
ACERU041	Facility Unpaved Roads ≤15 mph	202078.2	5315937.0	2.438	11.35	2.438	1.11E-02
ACERU042	Facility Unpaved Roads ≤15 mph	202102.1	5315934.5	2.438	11.35	2.438	1.11E-02
ACERU043	Facility Unpaved Roads ≤15 mph	202127.1	5315933.5	2.438	11.35	2.438	1.11E-02
ACERU044	Facility Unpaved Roads ≤15 mph	202151.2	5315932.0	2.438	11.35	2.438	1.11E-02
ACERU045	Facility Unpaved Roads ≤15 mph	202175.1	5315930.0	2.438	11.35	2.438	1.11E-02
ACERU046	Facility Unpaved Roads ≤15 mph	202199.4	5315930.0	2.438	11.35	2.438	1.11E-02
ACERU047	Facility Unpaved Roads ≤15 mph	202224.0	5315928.0	2.438	11.35	2.438	1.11E-02
ACERU048	Facility Unpaved Roads ≤15 mph	202248.0	5315926.0	2.438	11.35	2.438	1.11E-02
ACERU049	Facility Unpaved Roads ≤15 mph	202273.0	5315925.5	2.438	11.35	2.438	1.11E-02
ACERU050	Facility Unpaved Roads ≤15 mph	202297.0	5315923.0	2.438	11.35	2.438	1.11E-02
ACERU051	Facility Unpaved Roads ≤15 mph	202321.0	5315921.5	2.438	11.35	2.438	1.11E-02
ACERU052	Facility Unpaved Roads ≤15 mph	202346.0	5315920.0	2.438	11.35	2.438	1.11E-02
ACERU053	Facility Unpaved Roads ≤15 mph	202370.0	5315919.0	2.438	11.35	2.438	1.11E-02
ACERU054	Facility Unpaved Roads ≤15 mph	202395.0	5315917.0	2.438	11.35	2.438	1.11E-02
ACERU055	Facility Unpaved Roads ≤15 mph	202419.0	5315917.5	2.438	11.35	2.438	1.11E-02
ACERU056	Facility Unpaved Roads ≤15 mph	202443.3	5315918.0	2.438	11.35	2.438	1.11E-02
ACERU057	Facility Unpaved Roads ≤15 mph	202468.0	5315922.0	2.438	11.35	2.438	1.11E-02
ACERU058	Facility Unpaved Roads ≤15 mph	202492.1	5315933.0	2.438	11.35	2.438	1.11E-02
ACERU059	Facility Unpaved Roads ≤15 mph	202512.3	5315950.0	2.438	11.35	2.438	1.11E-02
ACEPK001	Facility Parking Lot ≤15 mph	200573.0	5315747.0	2.438	5.670	2.438	2.25E-04
ACEPK002	Facility Parking Lot ≤15 mph	200578.8	5315758.0	2.438	5.670	2.438	2.25E-04
ACEPK003	Facility Parking Lot ≤15 mph	200584.5	5315768.5	2.438	5.670	2.438	2.25E-04
ACEPK004	Facility Parking Lot ≤15 mph	200590.2	5315779.5	2.438	5.670	2.438	2.25E-04
ACEPK005	Facility Parking Lot ≤15 mph	200590.2	5315791.5	2.438	5.670	2.438	2.25E-04
ACEPK006	Facility Parking Lot ≤15 mph	200590.3	5315803.5	2.438	5.670	2.438	2.25E-04
ACEPK007	Facility Parking Lot ≤15 mph	200590.5	5315815.5	2.438	5.670	2.438	2.25E-04
ACEPK008	Facility Parking Lot ≤15 mph	200590.8	5315827.5	2.438	5.670	2.438	2.25E-04
ACEPK009	Facility Parking Lot ≤15 mph	200590.8	5315840.0	2.438	5.670	2.438	2.25E-04
ACEPK010	Facility Parking Lot ≤15 mph	200591.0	5315852.0	2.438	5.670	2.438	2.25E-04

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Horiz. Dim. (m)	Vert. Dim. (m)	PM <sub>10</sub> Emission rate (g/s)
ACEPK011	Facility Parking Lot ≤15 mph	200591.7	5315864.0	2.438	5.670	2.438	2.25E-04
ACEPK012	Facility Parking Lot ≤15 mph	200593.0	5315876.0	2.438	5.670	2.438	2.25E-04
ACEPK013	Facility Parking Lot ≤15 mph	200594.0	5315888.0	2.438	5.670	2.438	2.25E-04
ACEPK014	Facility Parking Lot ≤15 mph	200596.8	5315900.0	2.438	5.670	2.438	2.25E-04
ACEPK015	Facility Parking Lot ≤15 mph	200600.5	5315911.5	2.438	5.670	2.438	2.25E-04
ACEPK016	Facility Parking Lot ≤15 mph	200601.0	5315923.5	2.438	5.670	2.438	2.25E-04
ACEPK017	Facility Parking Lot ≤15 mph	200601.5	5315935.5	2.438	5.670	2.438	2.25E-04
ACEPK018	Facility Parking Lot ≤15 mph	200602.0	5315948.0	2.438	5.670	2.438	2.25E-04
ACEPK019	Facility Parking Lot ≤15 mph	200602.5	5315960.0	2.438	5.670	2.438	2.25E-04
ACEPK020	Facility Parking Lot ≤15 mph	200603.0	5315972.0	2.438	5.670	2.438	2.25E-04
ACEPK021	Facility Parking Lot ≤15 mph	200603.5	5315984.0	2.438	5.670	2.438	2.25E-04
ACEPK022	Facility Parking Lot ≤15 mph	200604.0	5315996.0	2.438	5.670	2.438	2.25E-04
ACEPK023	Facility Parking Lot ≤15 mph	200604.5	5316008.5	2.438	5.670	2.438	2.25E-04
ACEPK024	Facility Parking Lot ≤15 mph	200605.0	5316020.5	2.438	5.670	2.438	2.25E-04
ACEPK025	Facility Parking Lot ≤15 mph	200605.5	5316032.5	2.438	5.670	2.438	2.25E-04
ACEPK026	Facility Parking Lot ≤15 mph	200606.0	5316044.5	2.438	5.670	2.438	2.25E-04
ACEPK027	Facility Parking Lot ≤15 mph	200606.5	5316056.5	2.438	5.670	2.438	2.25E-04
ACEPK028	Facility Parking Lot ≤15 mph	200607.0	5316069.0	2.438	5.670	2.438	2.25E-04
ACEPK029	Facility Parking Lot ≤15 mph	200595.5	5316074.0	2.438	5.670	2.438	2.25E-04

Note: An emission rate of 1.0(u) refers to a unit emission rate of 1.0 g/sec that is adjusted by scalar.

**Table B.3 American Crystal Sugar – East Grand Forks Facility Area Source Modeled Parameters**

The following area source parameters reflect the conditions modeled to show compliance with PM<sub>10</sub> NAAQS. Changes to any of these parameters may trigger remodeling and/or a permit amendment. For details, see Table A of the permit, Subject Item: Total Facility.

Current Model I.D.	Description	Easting (m)	Northing (m)	Release Ht. (m)	Easterly Length (m)	Northerly Length (m)	Angle from N (°)	Vert. Dim. (m)	PM <sub>10</sub> (g/s)
ACESP030	Coal Storage	200799.2	5315642.5	2.29	18.3	108.1	3	4.57	0.1079
ACESH030	Coal Handling	200799.2	5315642.5	2.29	18.3	108.1	3	4.57	0.0112
ACESP031	Coke Storage	200873.8	5315929.5	0.76	20.1	20.1	0	1.52	0.0277
ACESH031	Coke Handling	200873.8	5315929.5	0.76	20.1	20.1	0	1.52	0.0005
ACESP032	Lime Rock Storage	200845.3	5316343.0	0.76	39.6	39.6	0	1.52	0.0553
ACESH032	Lime Rock Handling	200845.3	5316343.0	0.76	39.6	39.6	0	1.52	0.0799
ACESP033	Active Spent Lime	202389.3	5315966.0	2.0	50.4	221.0	3	2.0	0.1310
ACESP034	Inactive Spent Lime	202446.2	5315964.0	2.0	250.1	400.0	3	2.0	1.6450

**Table B.4 Maximum Predicted Concentrations**

<b>Pollutant</b>	<b>Averaging Time</b>	<b>Modeled Emissions (µg/m<sup>3</sup>)</b>	<b>Background concentration (µg/m<sup>3</sup>)</b>	<b>Total Impact (µg/m<sup>3</sup>)</b>	<b>MAAQS (µg/m<sup>3</sup>)</b>	<b>NAAQS (µg/m<sup>3</sup>)</b>
<b>PM<sub>10</sub></b>	Annual <sup>A</sup>	30.6	10.0 <sup>D</sup>	40.6	50.0	50.0
	24-hour <sup>B</sup>	131.5	10.0 <sup>D</sup>	141.5	150.0	150.0
<b>SO<sub>2</sub></b>	Annual <sup>A</sup>	41.9	2.6	44.5	80.0	80.0
	24-hour <sup>C</sup>	246.2	7.9	254.1	365.0	365.0
	3-hour <sup>C</sup>	508.7	15.7	524.4	1300.0	1300.0
	1-hour <sup>C</sup>	571.7	21.0	592.7	1300.0	1300.0
<b>NO<sub>x</sub></b>	Annual <sup>A</sup>	22.0	11.0	33.0	100.0	100.0
<b>CO</b>	8-hour <sup>C</sup>	165.9	1831	1997	10000	10000
	1-hour <sup>C</sup>	409.1	2746	3155	40000	40000

<sup>A</sup> Modeled concentration is highest concentration for five modeled years.

<sup>B</sup> Modeled concentration is high-sixth-high concentration for five year multi-year runs

<sup>C</sup> Modeled concentration is high-second-high concentration for five modeled years

<sup>D</sup> PM<sub>10</sub> was modeled using the First-Approximation-Run (FAR) approach, which included volume and area sources to represent distant background contributions. An additional background concentration of 10.0 µg/m<sup>3</sup> was supplied by the MPCA.

**APPENDIX C – Insignificant Activities**

**Facility Name:** American Crystal Sugar - East Grand Forks

**Permit Number:** 11900002-005

**Insignificant Activities and Applicable Requirements**

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Likely Applicable Requirement
3(A)	Fuel use: space heaters fueled by, kerosene, natural gas, or propane.  <i>Permittee operates such space heaters.</i>	Minn. R. 7011.0510/0515
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.  <i>Petroleum liquid storage tanks</i>	Minn. R. 7011.0710/0715
3(J)	Fugitive Emissions from roads and parking lots.	Minn. R. 7011.0150
4	Individual emissions units at a stationary source, each of which has:  A. Potential emissions of 5.7 pounds per hour or actual emissions of two tons per year of carbon monoxide;  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; and.....  <i>The following PM/PM<sub>10</sub> sources have potential controlled emissions less than 1 tpy of PM/PM<sub>10</sub>, and so it follows that actual emissions are less than 1 tpy for each :</i>  o <i>EU019 Ash Conveying System</i>	Minn. R. 7011.0710/0715

**Conditionally Insignificant Activities**

	Rule Description of the Activity	Likely Applicable Requirement
Minn. R. 7008.4110	Emissions from equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM <sub>10</sub> ) inside a building, provided that emissions from the equipment are:  a). filtered through an air cleaning system; and  b). vented inside of the building 100% of the time.  o <i>EU027 Tote Station</i>	Minn. R. 7011.0710/0715

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 11900002-005**

This technical support document is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp.1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

**1. General Information**

**1.1. Applicant and Stationary Source Location:**

Applicant/Address	Stationary Source/Address (SIC Code: 2036)
American Crystal Sugar Company 101 North Third Street Moorhead, MN 56560	1020 U.S. Highway 2 East Grand Forks Polk County
Contact: Patricia Hansen, Regulatory Affairs Manager Phone: 218-236-4347	

**1.2. Description of the Facility**

American Crystal Sugar Company (Company) owns and operates a sugar beet processing plant at 1020 Highway US 2 East, East Grand Forks, Polk County, Minnesota. The East Grand Forks plant consists of two coal-fired (subbituminous) boilers and one natural gas boiler which all produce process steam; three natural gas-fired pulp dryers; one pulp pellet cooler; pulp pellet handling, storage and loading equipment; two lime kilns; two lime slakers; two sugar dryers; two sugar coolers; ash removal systems and dry sugar storage, handling, and sacking equipment.

The general sugar making process can be divided into 4 steps: extraction, purification, evaporation and crystallization. In the extraction process beets are received, cleaned, sliced and then the sugar-containing liquid, called raw juice, is extracted by diffusion. The leftover material, called pulp, is dried and pressed to be sold as animal feed. During purification, milk of lime and carbon dioxide gas are all added to the raw juice in a series of carbonation tanks and non-sucrose impurities are removed by precipitation. The lime and carbon dioxide are produced in lime kilns and the lime is converted to milk of lime in a lime slaker. The evaporation process concentrates the juice in a series of evaporators. The concentrated liquid, now called thick juice, is crystallized, dried, cooled, screened, and stored or packaged for shipment. During the crystallization process, a liquid is centrifuged from the sugar crystals called molasses. Sugar can be extracted from this liquid by repeated boilings and ion exchange. The remaining molasses can be used in the production of livestock feed.

The three boilers, pulp dryers, and lime kilns are sources of combustion emissions. Particulate matter (PM) is emitted from the other sources at the facility due to product handling. Electrostatic precipitators (ESPs) control PM emissions from the two coal-fired boilers. Other pollution control equipment at the facility consists of: a multiclone with a hopper-aspirated fabric filter system for each pulp dryer, baghouses for the pellet cooler, fabric filters for sugar storage and conveying sources, baghouses for the lime kilns, and rotoclones for the sugar dryers and baghouses for the sugar coolers. Coal, coke and limerock are received by rail and stored in uncovered storage piles. These can all be sources of fugitive particulate emissions along with paved and unpaved roads at the facility

The entire facility operates only part of the year during a period of time referred to as the campaign. Harvest can begin as early as August and usually ends in November. During harvest, sugar beets are stockpiled at the factory and at remote stockpiling sites in the outlying areas. The goal is to have the beets stored in a frozen condition in the piles until they can be processed at the factory. The facility's beet slicing campaign will generally run from September until April or May, twenty-four hours per day.

The facility plans to replace the three existing gas-fired pulp dryers with a single steam-heated dryer. One of the pulp dryers will likely remain as a back-up unit. This change was evaluated by MPCA and determined to not be subject to PSD requirements, or to require a permit amendment. This determination is documented in a letter to ACS dated July 31, 2006.

### **1.3 Description of the Activities Allowed by this Permit Action**

This permit action is the reissuance of the Title V operating permit. The reissuance includes an update to the dust collection system, to address safety related issues. The facility will install four new dust collectors (EU035/CE033, EU036/CE034, EU037/CE035, and EU038/CE036) in the sugar handling area. These will replace several existing dust collectors (EU020/CE021, EU021/CE022, EU028/CE029, EU029/CE030, and EU030/CE031). This change by itself qualifies for a minor amendment, but is being authorized in conjunction with the Title V permit, and is included in the PM<sub>10</sub> modeling submitted in March 2009. The reissuance also includes addition of biogas as an allowed fuel for Boilers 1 and 2; potential emissions of the units using biogas in addition to coal were compared to past actual emissions, the modification is not a major modification under PSD. (*Title V Reissuance, DQ # 319*).

Another modification authorized by the permit is the addition of anthracite coal, pulverized coal, and natural gas as allowed fuels in the lime kilns. Potential emissions of units using the new fuels was compared to past actual emissions, and the modification is not a major modification under PSD. The change does require a major amendment for the amendment of Title I conditions (i.e., addition of fuel under the Title I condition). (*Major amendment, DQ# 2129*)

This permit action also incorporates operating parameter requirements according to conditions monitored during performance tests on the lime slakers, lime kilns, B-side sugar dryer, Boilers 1, 2, and 3, and pulp pellet loadout. (*Reopenings, DQ # 1293, 1342, 1481, 1879*)

A typographical error dating back to the initial Title V permit issuance is corrected. For Boilers 1 and 2 (EU001 and EU002), the NO<sub>x</sub> limit is listed as a 1-hour average; this should be a 3-hour average, and was agreed to by MPCA staff shortly after the permit was issued in 2000. The company applied for an administrative amendment to correct this in August 2000.

The permit is also being brought up-to-date in terms of when future performance tests are required, incorporation of CAM requirements where applicable, addition of periodic monitoring where CAM is not applicable, and addition of recordkeeping now included in all permits for sources which are major under PSD.

Finally, portions of the permit were reformatted for clarity:

- Several fabric filters had not been explicitly included previously, but were only referenced as part of the requirements for emission units or groups. All control devices are now explicitly listed with their required operating parameters and monitoring requirements, including CAM as applicable.
- GP004 was eliminated, as it was comprised of units that qualify as insignificant activities which are now listed in the permit appendix.
- GP005 was eliminated, and the requirements for the pulp pellet loadout units were listed individually, since they are subject to different limits based on stack testing results.
- GP006 was added to clarify the fuel usage limits that apply to EU001 and EU002 as combined limits.
- GP007 was added to include the applicable requirements for the multiclone hoppers, which were not previously included in the permit
- GP008 was added for the standard CEMS language for the monitors on the boilers.
- GP009 was added for the standard COMS language for the monitors on the boilers.
- Requirements associated with CEMS and COMS are now listed in accordance with the most recent program guidance for Delta trackability.

An administrative amendment application received on December 21, 2008,(DQ # 2364) was not directly incorporated into this permit action. The amendment requested was for a 120 day extension to the CEMS RATA for



EU001 and EU002. The RATA in question was due during the term of the existing permit (permit 11900002-004), and the test has already been completed (also during the term of permit 11900002-004). No further action relative to extending the deadlines for the RATA requirements for these two units is required under permit 11900002-005 at this time.

#### 1.4. Facility Emissions:

**Table 1a. Title I Emissions Increase Summary - Addition of Biogas at Boiler Fuel**

Pollutant	Projected Actual Emissions after the Modification (tpy)	Baseline Emissions prior to the Modification (tpy)	Projected Increase in Emissions (tpy) <sup>(a)</sup>	PSD Significant Thresholds for major sources (tpy)	NSR Review Required?
PM	100	111	0 <sup>(b)</sup>	25	No
PM <sub>10</sub>	148	148	0 <sup>(b)</sup>	15	No
PM <sub>2.5</sub>	101	100	1	10	No
NO <sub>x</sub>	722	914	0 <sup>(b)</sup>	40	No
SO <sub>2</sub>	842	822	20	40	No
CO	557	600	0 <sup>(b)</sup>	100	No
Ozone (VOC)	6	5	1	40	No
Lead	0.038	0.042	0 <sup>(b)</sup>	0.6	No
Fluorides (HF)	13.3	15	0 <sup>(b)</sup>	3	No
TRS	8.4	7.4	1	10	No

**Table 1b. Title I Emissions Increase Summary - Addition of Coal/Anthracite at Lime Kiln Fuel**

Pollutant	Projected Actual Emissions after the Modification (tpy)	Baseline Emissions prior to the Modification (tpy)	Projected Increase in Emissions (tpy) <sup>(a)</sup>	PSD Significant Thresholds for major sources (tpy)	NSR Review Required?
PM	6.39	6.09	0.31	25	No
PM <sub>10</sub>	6.39	6.09	0.31	15	No
PM <sub>2.5</sub>	3.13	2.98	0.15	10	No
NO <sub>x</sub>	12.92	6.17	6.75	40	No
SO <sub>2</sub>	6.06	0.49	5.58	40	No
CO	23.54	24.01	0 <sup>(b)</sup>	100	No
Ozone (VOC)	1.24	0.20	1.04	40	No
Lead	0.0369	0.0017	0.0352	0.6	No
Fluorides (HF)	0.622	0.6002	0.0217	3	No
TRS	0.0606	0.0049	0.0558	10	No

(a) For Title I purposes, the Projected Increase is a comparison of the projected actual emissions after the modification and the actual (baseline) emissions prior to the modification.

(b) If the projected actual emissions are less than the baseline actual emissions (i.e., indicating a projected decrease in emissions), this is treated as an increase of 0; decreases are not counted as such unless a source-wide netting analysis is done.

**Table 2. Total Facility Potential to Emit Summary**

	PM tpy	PM <sub>10</sub> tpy	PM <sub>2.5</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	737	718	543	3553	2325	2147	735	206	240
Total Facility Actual Emissions (2007)	296	377 <sup>(b)</sup>	NA <sup>(a)</sup>	714	907	1172	376	HAPs not reported in emission inventory	

(a) PM<sub>2.5</sub> is not currently reported in the emission inventory

(b) PM<sub>10</sub> is higher than PM because as defined, PM<sub>10</sub> includes both organic and inorganic condensables; when PM includes condensables, only the organic condensables are included.

The total facility limited potential emissions reflect the following changes:

- SO<sub>2</sub> limits on boilers 1 and 2 (EU001 and EU002) were lowered as a result of the facility modeling that was done.
- PM/PM<sub>10</sub> limits on pulp dryers (EU003, EU004, and EU005) were lowered as a result of the facility modeling that was done.
- VOC and CO emissions for the pulp dryers (EU003, EU004, and EU005) were increased to reflect the test results that are also used in the emission inventory (previous permits showed only calculated emissions based on fuel combustion, they did not consider the emissions from the drying of the pulp). This does not reflect an actual increase in emissions, it is a correction to the previous calculations.
- Miscellaneous changes where available emission factors were updated.

**Table 3. Facility Classification**

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD	X		
Part 70 Permit Program	X		
Part 63 NESHAP	X		

## 2. Regulatory and/or Statutory Basis

### New Source Review

The facility is an existing major source under New Source Review regulations. The permit authorizes no changes subject to New Source Review.

### Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

### New Source Performance Standards (NSPS)

Portions of the facility are subject to NSPS Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators For Which Construction Is Commenced After August 17, 1971; and Subpart Db, Standards of Performance for Industrial-Commercial –Institutional Steam Generating Units.

The lime kilns were installed in 1975. NSPS Subpart HH, Standards of Performance for Lime Manufacturing Plants, applies only to lime kilns installed or modified after May 3, 1977.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a major source of HAPs, and was going to be subject to the Boiler MACT, 40 CFR § 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional

Boilers and Process Heaters. However, on July 30, 2007, the Boiler MACT was vacated in its entirety. Therefore, there is no MACT standard that applies to the boilers and process heaters (pulp dryers), and the Permittee was required to submit a Part 2 MACT Hammer application under Section 112(j) of the Clean Air Act. This was received on October 1, 2007. The MPCA is not acting on MACT Hammer submittals at this time.

Compliance Assurance Monitoring (CAM)

**Table 4 CAM Applicability Summary**

Unit	Control	CAM Applies?	Pollutant	Monitoring/Comment
EU001	CE001 ESP	Yes - Large	PM/PM <sub>10</sub>	COMS, 3-hour average
EU002	CE002 ESP	Yes - Large	PM/PM <sub>10</sub>	COMS, 3-hour average
EU003	CE003 Multiclone	Yes - Large	PM/PM <sub>10</sub>	Continuous pressure drop monitoring, 3-hr average
EU004	CE005 Multiclone	Yes - Large	PM/PM <sub>10</sub>	Continuous pressure drop monitoring, 3-hr average
EU005	CE007 Multiclone	Yes - Large	PM/PM <sub>10</sub>	Continuous pressure drop monitoring, 3-hr average
EU006	CE009 Fabric Filter CE010 Fabric Filter	Yes - Other	PM/PM <sub>10</sub>	Daily Δp monitoring
EU007	CE011 Fabric Filter	No	PM < 100 tpy uncontrolled	NA
EU008	CE012 Fabric Filter	Yes - Other	PM/PM <sub>10</sub>	Daily Δp monitoring
EU009	CE013 Carbonation system	No	SO <sub>2</sub>	Only SO <sub>2</sub> limit is on uncontrolled emissions
EU010 EU011	CE014 Venturi Scrubber	No	PM/PM <sub>10</sub> < 100 tpy uncontrolled	NA
EU012	CE015 Dynamic Separator	No	PM < 100 tpy uncontrolled	NA
EU013	CE016 Fabric Filter	No	PM < 100 tpy uncontrolled	NA
EU014	CE017 Dynamic Separator	No	PM < 100 tpy uncontrolled	NA
EU015	CE018 Fabric Filter	Yes - Other	PM/PM <sub>10</sub>	Daily Δp monitoring
EU016	CE019 Dynamic Separator	No	PM < 100 tpy uncontrolled	NA
EU017	None	No	No controls	NA
EU018	None	No	No controls	NA
EU022	CE023 Fabric Filter	Yes - Other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup
EU023	CE024 Fabric Filter	Yes - Other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup
EU024	CE025 Fabric Filter	Yes - Other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup
EU025	CE026 Fabric Filter	Yes - Other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup
EU026	CE027 Fabric Filter	No	PM < 100 tpy uncontrolled	NA
EU031	CE032 Fabric Filter	No	PM < 100 tpy uncontrolled	NA
EU032	CE004 Fabric Filter	No	PM < 100 tpy uncontrolled	NA
EU033	CE006 Fabric Filter	No	PM < 100 tpy	NA

Unit	Control	CAM Applies?	Pollutant	Monitoring/Comment
			uncontrolled	
EU034	CE008 Fabric Filter	No	PM < 100 tpy uncontrolled	NA
EU035	CE033 Fabric Filter <sup>(1)</sup>	Yes – other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup
EU036	CE034 Fabric Filter <sup>(1)</sup>	Yes – other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup
EU037	CE035 Fabric Filter <sup>(1)</sup>	Yes – other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup
EU038	CE036 Fabric Filter <sup>(1)</sup>	Yes – other	PM/PM <sub>10</sub>	Daily visible emission reading; Δp monitoring as backup

<sup>(1)</sup> These 4 units are replacement units for CE021, CE022, CE029, CE030, and CE031, which are included in the CAM plan. The classification (other, rather than large) and monitoring are the same, so a replacement CAM plan was not requested from the Permittee.

For large pollutant specific emission units (PSEU), records of the monitored parameter must be made at a minimum of 4 times per hour, or once every 15 minutes. For other PSEUs (not large), records must be made at a minimum of once per 24 hours. See Attachment 1 to this document for the CAM Plans submitted by the applicant.

**EAW & AERA**

There are no changes authorized that would trigger the need for an Environmental Assessment Worksheet (EAW) or Air Emissions Risk Assessment (AERA) at this time.

**Minnesota State Rules**

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.1005 Standards of performance for dry bulk agricultural commodity facilities

**Table 5. Regulatory Overview of Permitted Units**

EU, GP, or SV	Applicable Regulations	Comments:
GP001 (EU010, EU011)	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment.
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for a previous PSD permit
GP002 (EU008, EU009)	Minn. R. 7011.0610	Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
	40 CFR § 52.21(k)	Limits for PM <sub>10</sub> , SO <sub>2</sub> , and NO <sub>x</sub> derived from modeling for a previous PSD permit
	40 CFR pt. 64	Units are other PSEUs – for particulate controls
GP003 (dust collection systems)	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment.
	40 CFR § 52.21(k)	Limits for PM <sub>10</sub> derived from modeling for a previous PSD permit, updated (reduced) through this permit action to reflect modeling for NAAQS
	40 CFR pt. 64	Units are other PSEUs – for particulate controls
GP006 (EU001,	40 CFR § 52.21(k)	Combined limits on boiler fuel usage derived from values used for modeling for a previous PSD permit; edited to include

<b>EU, GP, or SV</b>	<b>Applicable Regulations</b>	<b>Comments:</b>
EU002)		biogas.
GP007 (EU032, EU033, EU034)	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment. The emissions from these units are “lost” in the emissions from the pulp dryers. They exhaust to the same stack and are not discernible from the pulp dryer emissions.
EU001	40 CFR pt. 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators For Which Construction Is Commenced After August 17, 1971
	40 CFR § 52.21(k)	Limits for PM <sub>10</sub> , SO <sub>2</sub> , and NO <sub>x</sub> derived from modeling done for a previous PSD permit. SO <sub>2</sub> emission limit was reduced following NAAQS modeling done for this permit action.
	40 CFR pt. 64	Unit is a large PSEU (for particulate controls)
EU002	40 CFR pt. 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators For Which Construction Is Commenced After August 17, 1971
	40 CFR § 52.21(k)	Limits for PM <sub>10</sub> , SO <sub>2</sub> , and NO <sub>x</sub> derived from modeling done for a previous PSD permit. SO <sub>2</sub> emission limit was reduced following NAAQS modeling done for this permit action.
	40 CFR pt. 64	Unit is a large PSEU (for particulate controls)
EU003	Minn. R. 7011.0610	Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for a previous PSD permit; limit reduced following NAAQS modeling done for this permit action.
	40 CFR pt. 64	Unit is a large PSEU (for particulate controls)
EU004	Minn. R. 7011.0610	Limit for PM <sub>10</sub> derived from modeling for a previous PSD permit; limit reduced following NAAQS modeling done for this permit action.
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from BACT modeling
	40 CFR pt. 64	Unit is a large PSEU (for particulate controls)
EU005	Minn. R. 7011.0610	Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
	40 CFR § 52.21(j) & (k)	PM <sub>10</sub> BACT limit; lower limit was added following NAAQS modeling done for this permit action
	40 CFR pt. 64	Unit is a large PSEU (for particulate controls)
EU006	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment.
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for previous PSD permit; limit was corrected through this permit action to reflect the original limit from the 1997 permit (it had been misinterpreted when incorporated into original Title V permit in 2000)
	40 CFR pt. 64	Unit is an other PSEU (for particulate controls)
EU007	Minn. R. 7011.1005	Standards of performance for dry bulk agricultural commodity facilities
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for previous PSD permit
EU012	Minn. R. 7011.0610	Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for previous PSD permit
EU013	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment.

EU, GP, or SV	Applicable Regulations	Comments:
EU014	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for previous PSD permit
	Minn. R. 7011.0610	Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
EU015	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for previous PSD permit
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment.
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for previous PSD permit
EU016	40 CFR pt. 64	Unit is an other PSEU (for particulate controls)
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment.
EU017	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from modeling for previous PSD permit
	40 CFR pt. 60, Subpart Db	Standards of Performance for Industrial-Commercial – Institutional Steam Generating Units
	40 CFR § 52.21(j)	NO <sub>x</sub> BACT limit from a previous PSD permit
EU018	40 CFR § 52.21(k)	Limits for PM <sub>10</sub> and SO <sub>2</sub> added following NAAQS modeling completed for this permit action.
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment.
EU031	Minn. R. 7011.1005	Standards of performance for dry bulk agricultural commodity facilities
	40 CFR § 52.21(k)	Limit for PM <sub>10</sub> derived from BACT modeling

### 3. Technical Information

#### 3.1 Calculations of Potential to Emit

Attachment 3 to this TSD contains a summary of the PTE of the Facility, and the spreadsheets showing the PTE calculations.

For most units/operations, the PTE calculations are based on permit limits, which in turn are derived from the modeled emission rates. Many of these limits were set in previous permit actions, and are carried forward in this permit.

##### *EU001/EU002 (Coal-fired boilers)*

Calculations of PM, PM<sub>10</sub>, NO<sub>x</sub>, and SO<sub>2</sub> are based on the permitted emission limits. The remaining pollutants are calculated from emission factors published in AP-42 Section 1.1. Controlled emissions of PM<sub>2.5</sub> are assumed to be approximately 29% of the controlled total PM emissions, based on particle size distributions provided in AP-42, Table 1.1-6.

##### *EU003 – EU005 (Pulp Dryers)*

Calculations of PM<sub>10</sub>, NO<sub>x</sub>, and SO<sub>2</sub> are based on the permitted emission limits. PM and PM<sub>2.5</sub> are assumed to be the same as PM<sub>10</sub>, and for that reason PM<sub>2.5</sub> may be overestimated. (It is reasonable that all PM may be PM<sub>10</sub>). The remaining criteria pollutants and HAPs were calculated from emission factors published in AP-42 Section 1.4.

VOC emissions have been tested for pulp dryers A and C, at 55.8 lb/hr and 53.1 lb/hr, respectively. The value of 55.8 lb/hr was used for PTE calculations for all dryers A and B (EU003 and EU004); the value of 53.1 was used for dryer C (EU005).

CO emissions have been tested for pulp dryers A and C, at 86.7 lb/hr and 81.7 lb/hr, respectively. The value of 86.7 lb/hr was used for PTE calculations for dryers A and B (EU003 and EU004); the value of 81.7 was used for dryer C (EU005).

### ***EU006 (Pellet Cooler)***

PM<sub>10</sub> emission calculations are based on the permitted emission rate. PM and PM<sub>2.5</sub> emissions are assumed to be the same as PM<sub>10</sub>, since the unit is controlled by a fabric filter.

### ***EU007& EU031 (Pellet Loadout)***

PM<sub>10</sub> emission calculations are based on the permitted emission rates. PM and PM<sub>2.5</sub> emissions are assumed to be the same as PM<sub>10</sub>, since the units are controlled by fabric filters.

### ***EU008/EU009 (Lime Kilns)***

PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions are calculated based on the permitted emission rates. The remaining criteria pollutants are calculated from AP-42 emission factors for lime production (AP-42 Table 11.17-6). Emission factors are expressed in pounds of pollutant per ton of lime produced. The permitted limerock throughput is 23.8 tons per hour. Lime is produced from the limerock:  $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$ . So, for every 100 pounds of limerock, you'd expect approximately 56 pounds of lime. Thus, for every 23.8 tons of limerock introduced into the process, you can expect 13.3 tons of lime to be produced.

The HAPS from coke combustion were calculated by the MPCA using emission factors for lime manufacturing in a coal-fired kiln. This is likely an overestimate, since AP-42 discusses for criteria pollutants that not all of the combustion emissions are actually emitted. The MPCA calculations were entered into Delta as the PTE. Pollutants are entered in Delta at the stack (SV009) level because the limits are combined limits and the emissions exhausted through a single stack. See Section 3.2 for the analysis showing that including coal as an allowed fuel does not trigger NSR for the lime kilns.

### ***EU010/EU011 (Lime Slakers)***

PM<sub>10</sub> emission calculations are based on the permitted emission rates. PM emissions are calculated from AP-42 emission factors for lime production (AP-42 Table 11.17-2); however, this calculation showed significantly lower PM PTE than allowed PM<sub>10</sub>, so it was assumed for purposes of entering data into Delta that PM = PM<sub>10</sub>. PM<sub>2.5</sub> emissions were entered as calculated (i.e., less than PM and PM<sub>10</sub>). Emission factors are expressed in pounds of pollutant per ton of lime produced. The permitted limerock throughput is 21 tons per hour. Lime is produced from the limerock:  $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$ . So, for every 100 pounds of limerock, you'd expect approximately 56 pounds of lime. Thus, for every 21 tons of limerock introduced into the process, you can expect 11.76 tons of lime to be produced.

### ***EU012/EU014 (Sugar Dryers)***

PM<sub>10</sub> emission calculations are based on the permitted emission rates. PM and PM<sub>2.5</sub> emissions are assumed to be the same as PM<sub>10</sub>.

### ***EU013/EU015 (Sugar Coolers)***

PM<sub>10</sub> emission calculations are based on the permitted emission rates. PM and PM<sub>2.5</sub> emissions are assumed to be the same as PM<sub>10</sub>.

### ***EU016 (B-Side Dust Control System)***

PM<sub>10</sub> emission calculations are based on the permitted emission rates. PM and PM<sub>2.5</sub> emissions are assumed to be the same as PM<sub>10</sub>.

### ***EU017 (Natural Gas Boiler)***

PM<sub>10</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions are calculated based on the permitted emission rates. The remaining pollutants are calculated from AP-42 emission factors for natural gas combustion.

### ***EU018 (Wastewater Treatment Flare)***

PM<sub>10</sub>, CO, SO<sub>2</sub>, and NO<sub>x</sub> emissions are calculated based on the modeled emission rates. PM and PM<sub>2.5</sub> were assumed to be the same as PM<sub>10</sub>.

### ***EU022 – EU026, EU35 – EU038 (Miscellaneous sugar handling operations)***

PM<sub>10</sub> emissions are calculated based on the modeled emission rates. PM and PM<sub>2.5</sub> were assumed to be the same as PM<sub>10</sub>.

### 3.2 Modeling

ACS modeled PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, and CO, for purposes of a proposed PSD project that is not being permitted at this time; the project is being re-reviewed for applicability of PSD for PM<sub>2.5</sub>. However, since the proposed project does not involve new emissions units, just the debottlenecking of the existing boilers (EU001 and EU002), ACS modeled the entire facility at maximum PTE, and the modeled facility reflects the existing facility. Therefore, the modeling is being used at this time as NAAQS modeling, and results in updates to the modeling parameters summarized in Appendix B to the permit. The modeling output is included in Attachment 5 to this document. The following table summarizes the modeled impacts.

**Table 6 Maximum Predicted Concentration**

Pollutant	Averaging Time	Modeled Emissions (µg/m <sup>3</sup> )	Background concentration (µg/m <sup>3</sup> )	Total Impact (µg/m <sup>3</sup> )	MAAQS (µg/m <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )
PM <sub>10</sub>	Annual <sup>A</sup>	30.6	10.0 <sup>D</sup>	40.6	50.0	50.0
	24-hour <sup>B</sup>	131.5	10.0 <sup>D</sup>	141.5	150.0	150.0
SO <sub>2</sub>	Annual <sup>A</sup>	41.9	2.6	44.5	80.0	80.0
	24-hour <sup>C</sup>	246.2	7.9	254.1	365.0	365.0
	3-hour <sup>C</sup>	508.7	15.7	524.4	1300.0	1300.0
	1-hour <sup>C</sup>	571.7	21.0	592.7	1300.0	1300.0
NO <sub>x</sub>	Annual <sup>A</sup>	22.0	11.0	33.0	100.0	100.0
CO	8-hour <sup>C</sup>	165.9	1831	1997	10000	10000
	1-hour <sup>C</sup>	409.1	2746	3155	40000	40000

<sup>A</sup> Modeled concentration is highest concentration for five modeled years.

<sup>B</sup> Modeled concentration is high-sixth-high concentration for five year multi-year runs

<sup>C</sup> Modeled concentration is high-second-high concentration for five modeled years

<sup>D</sup> PM<sub>10</sub> was modeled using the First-Approximation-Run (FAR) approach, which included volume and area sources to represent distant background contributions. An additional background concentration of 10.0 µg/m<sup>3</sup> was supplied by the MPCA.

The Permittee proposed a limit of 100000 trucks per stockpile period. However, they demonstrated that the maximum level of truck traffic that will still allow free-flowing traffic is 3000 trucks per day; more than 3000 trucks per day results in slower, “stop-and-go” traffic and lower levels of road dust generation. The model was done using 3000 trucks per day as a worst case (there will often be higher levels of traffic during stockpiling, resulting in slower traffic and lower emissions), and 100000 trucks per stockpile period is more than 3000 trucks per day for the (approximately) 30-day stockpiling period. Therefore, it was determined that the proposed limit of 100000 trucks per stockpile period is unnecessary.

During early stages of the dispersion modeling process, the Permittee requested to use a lower background PM<sub>10</sub> concentration than is normally used in a modeling analysis. After careful consideration of this request, the MPCA determined that use of a lower background concentration would be acceptable, if nearby sources were modeled explicitly. “Nearby sources” included Business Highway 2; although inclusion of a public road is not standard practice, the MPCA concluded it was appropriate in this case for the following reasons:

- The Permittee’s request to use significantly lower background concentrations
- The location of maximum predicted ambient impact occurs in the location of Business Highway 2



- During the MPCA's October 2007 site visit, staff observed road graders on the highway to remove significant buildup of silt
- The MPCA has reason to expect impacts exceeding EPA significant impact level (SIL) values at the Highway 2 location, as described below.

Recent changes have been made in how the MPCA deals with facility changes' effects on modeled parameters. The modeling group developed a spreadsheet called the Standardized Air Modeling (SAM) spreadsheet that was used by the Permittee and the MPCA modeling staff to document decisions as well as modeling results. This spreadsheet includes a section that gives the overall modeling a growth level ranking for each pollutant and averaging period based on the modeling results compared to the standard. For permit purposes, we use this growth level to come up with a tiered approach for choosing the appropriate permit language. The SAM spreadsheet will have a growth level for each of the pollutant NAAQS averaging times. Permit conditions for each criteria pollutant are based on the lowest growth level. Table 7 summarizes the allowed growth levels based on the modeled concentration as a percentage of the NAAQS, the type of permit, and whether or not limits are required in order to meet the standards.

**Table 7 Summary of Available Modeling Tiers**

% of NAAQS/MAAQs:	> 90%	90% - 75%	< 75%
Allowable Growth Level:	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>PSD - Limits</b>	Tier 4	Tier 2	Tier 1
<b>PSD – No Limits</b>	Tier 3	Tier 2	Tier 1
<b>Not PSD - Limits</b>	Tier 3	Tier 2	Tier 1
<b>Not PSD – No Limits</b>	Tier 1	Tier 1	Tier 1

Tier 1 requires parameter documentation only in the permit (no re-modeling). Tier 2 requires parameter documentation and submittal/approval for major/moderate amendment levels. Tier 3 requires parameter documentation and submittal/approval major/moderate/minor amendment levels with an evaluation at reissuance that addresses changes that didn't need an amendment during the term of the permit. Tier 4 requires parameter documentation and submittal/approval for all changes; this is essentially what was required for all modeled parameters in the past, regardless of how close the modeled concentration was to the applicable standard.

Referring to the modeled concentrations and NAAQS shown in Table 6, one sees that for SO<sub>2</sub>, NO<sub>x</sub>, and CO, all modeled concentrations are less than 75% of the NAAQS, which puts those pollutants in the Tier 1 category. The total impact of modeled PM<sub>10</sub> concentrations is at approximately 94% of the PM<sub>10</sub> 24-hour NAAQS, the permit is not a PSD permit, but PM<sub>10</sub> limits are required in order to meet the NAAQS. Therefore, for PM<sub>10</sub>, the Tier 3 requirements are triggered.

That said, the EPA will be proposing a new method of calculating road dust emissions, likely during August 2009. Preliminary review of the propose method and the data used in development of that method shows that the calculations of paved road dust emissions done for this permit action and modeling review overestimate the paved road emissions, and therefore overestimate the modeled ambient impacts. The Permittee expects that the revised calculations (which can be done when EPA officially proposes the new method) will show up to 70% lower road dust emissions. For this reason, the MPCA feels that the actual concentration and modeled impact of PM<sub>10</sub> are much lower than calculated for this permit action, and that there is little cause for concern regarding compliance with NAAQS. In fact, the Permittee re-calculated paved road emissions using the new (proposed/draft) equation and the model was executed to estimate emissions at the receptor of maximum concern. The revised model results indicated a 24-hour PM<sub>10</sub> impact of 53.8 micrograms per cubic meter (not including distant background, but including discrete background sources such as Hwy 2). The proposed/draft emission factors have temporarily been removed from EPA's web site. When they are reposted (estimated to be August 2009), the Permittee may re-address the PM<sub>10</sub> calculations and modeling for their upcoming project, using EPA's newer paved road dust calculation methods and newer meteorological data. It is anticipated that at the time of permitting the next project for which PM<sub>10</sub> modeling is done, the remodeling triggers in the permit may be relaxed.

Emissions of PM<sub>2.5</sub> have not been explicitly modeled. In the absence of an explicit demonstration that PM<sub>2.5</sub> impacts would be less than the PM<sub>2.5</sub> NAAQS, the typical course of action would be to compare modeled PM<sub>10</sub>

impacts ( $141 \mu\text{g}/\text{m}^3$  including background) to the  $\text{PM}_{2.5}$  NAAQS ( $35 \mu\text{g}/\text{m}^3$ ); if the modeled  $\text{PM}_{10}$  impacts are higher than the  $\text{PM}_{2.5}$  NAAQS, the applicant would be required to explicitly demonstrate compliance with the  $\text{PM}_{2.5}$  NAAQS through modeling. However, as described above, we know that the modeled  $\text{PM}_{10}$  impacts are conservatively high based on the future paved road emission factors from the EPA. In addition, the Permittee has presented the following information:

To use this value to estimate  $\text{PM}_{2.5}$ , one must take into account the following information based on particle size distribution data presented in AP-42,

- Paved road  $\text{PM}_{2.5}$  is only 15% of  $\text{PM}_{10}$  (*note: percentage not verified by MPCA*)
- Coal Boiler  $\text{PM}_{2.5}$  is only 68% of  $\text{PM}_{10}$  (*note: percentage not verified by MPCA*)
- Agricultural Dryer  $\text{PM}_{2.5}$  is only 78% of  $\text{PM}_{10}$  (*note: percentage not verified by MPCA*)

A review of the model results indicates that over half the impact at the receptor of maximum impact is due to paved roads. Therefore, if we reduce half of the modeled impact by 85% and half of the modeled impact by 30% to reflect the particle size distribution data, the modeled 24-hour impact is reduced to 22.9 micrograms per cubic meter.

Compared to the standard of 35 micrograms per cubic meter, the modeled impact is below the standard. However, in addition, the following should also be considered:

The equation used to perform the remodel was the original draft EPA equation that contained a typo on the vehicle weight exponent. The exponent was 0.8, whereas the (corrected) draft EPA equation contains an exponent of 0.68. Incorporating this change is anticipated to result in a further 20% reduction of the paved road emission rate based on the average weight of ACS vehicles traveling the paved roads.

Additionally, the modeled 24-hour  $\text{PM}_{10}$  value used for the scaling exercise is a high-sixth-high value. The standard for  $\text{PM}_{2.5}$  is actually a 98<sup>th</sup> percentile value. This would be equivalent to about a high-37<sup>th</sup>-high value in five years. What this means is that the appropriate value to use for comparison from the current model output would be significantly lower than the value used. If this significantly lower value were used and converted to  $\text{PM}_{2.5}$ , it is anticipated that the impact would be even farther below the standard.

Finally, a review of  $\text{PM}_{2.5}$  monitoring data in the North Dakota area indicates mean background values in the range of 6 to 8 micrograms, so plenty of room is available under the standard.

The Permittee has applied for a permit amendment authorizing a modification subject to New Source Review. As a requirement of that project,  $\text{PM}_{2.5}$  modeling will be required. For all of these reasons,  $\text{PM}_{2.5}$  modeling is not being required as a condition of issuance of the Title V permit.

### **3.3 Periodic Monitoring**

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 8 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

**Table 8. Periodic Monitoring**

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
EU001 (Coal boiler)	PM <sub>10</sub> ≤ 25.0 lb/hr (modeling limit) PM ≤ 0.1 lb/MMBtu heat input (NSPS limit)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M COMS (for CAM)	EU001 is a large PSEU, so the PM/PM <sub>10</sub> control equipment (CE001) is a CAM unit, subject to monitoring 4 times per hour. This is accomplished using the COMS.
	SO <sub>2</sub> ≤ 1.2 lb/MMBtu (NSPS limit) SO <sub>2</sub> ≤ 391.8 lb/hr (modeling limit)	SO <sub>2</sub> CEMS operation and maintenance	
	NO <sub>x</sub> ≤ 0.70 lb/MMBtu (NSPS limit) NO <sub>x</sub> ≤ 227.9 lb/hr (modeling limit)	NO <sub>x</sub> CEMS operation and maintenance	
	Steam Flow ≤ 275000 lb/hr (tested production rate)	Recordkeeping	
EU002 (Coal boiler)	PM <sub>10</sub> ≤ 25.0 lb/hr (modeling limit) PM ≤ 0.1 lb/MMBtu heat input (NSPS limit)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M	EU002 is a large PSEU, so the PM/PM <sub>10</sub> control equipment (CE001) is a CAM unit, subject to monitoring 4 times per hour. This is accomplished using the COMS.
	SO <sub>2</sub> ≤ 1.2 lb/MMBtu (NSPS limit) SO <sub>2</sub> ≤ 391.8 lb/hr (modeling limit)	SO <sub>2</sub> CEMS operation and maintenance	
	NO <sub>x</sub> ≤ 0.70 lb/MMBtu (NSPS limit) NO <sub>x</sub> ≤ 227.9 lb/hr (modeling limit)	NO <sub>x</sub> CEMS operation and maintenance	
	Steam Flow ≤ 250000 lb/hr (tested production rate)	Recordkeeping	
EU003 (Pulp Dryer A)	PM <sub>10</sub> ≤ 28.0 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0610)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M COMS (for CAM)	EU003 is a large PSEU, so the PM/PM <sub>10</sub> control equipment (CE003) is a CAM unit, subject to monitoring once per 15 minute period
	NO <sub>x</sub> ≤ 4.76 lb/hr (modeling limit)	None	Calculated NO <sub>x</sub> based on AP-42 emission factors is less than the modeled emission rate.
	PM <sub>10</sub> control efficiency: ≥ 50% PM control efficiency: ≥	None	These are conservative requirements; Minn. R. 7011.0070 allows 80% for PM and 60% for PM <sub>10</sub> without

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	50% (required to meet limits)		demonstration of compliance.
	Pulp Throughput $\leq$ 10.02 ton/hr (tested parameter)	Recordkeeping of pulp throughput per 8-hour block.	
EU004 (Pulp Dryer B)	PM <sub>10</sub> $\leq$ 28.0 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0610)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M	EU004 is a large PSEU, so the PM/PM <sub>10</sub> control equipment (CE005) is a CAM unit, subject to monitoring once per 15 minute period
	NO <sub>x</sub> $\leq$ 5.48 lb/hr (modeling limit)	None	Calculated NO <sub>x</sub> based on AP-42 emission factors is less than the modeled emission rate.
	PM <sub>10</sub> control efficiency: $\geq$ 50% PM control efficiency: $\geq$ 50% (required to meet limits)	None	These are conservative requirements; Minn. R. 7011.0070 allows 80% for PM and 60% for PM <sub>10</sub> without demonstration of compliance.
	Pulp Throughput $\leq$ 10.38 ton/hr (tested parameter)	Recordkeeping of pulp throughput per 8-hour block.	
EU005 (Pulp Dryer C)	PM <sub>10</sub> $\leq$ 45.0 lb/hr (PSD BACT limit) PM <sub>10</sub> $\leq$ 28.0 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0610)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M	EU005 is a large PSEU, so the PM/PM <sub>10</sub> control equipment (CE007) is a CAM unit, subject to monitoring once per 15 minute period
	NO <sub>x</sub> $\leq$ 4.76 lb/hr (modeling limit)	None	Calculated NO <sub>x</sub> based on AP-42 emission factors is less than the modeled emission rate.
	PM <sub>10</sub> control efficiency: $\geq$ 50% PM control efficiency: $\geq$ 50% (required to meet limits)	None	These are conservative requirements; Minn. R. 7011.0070 allows 80% for PM and 60% for PM <sub>10</sub> without demonstration of compliance.
	Pulp Throughput $\leq$ 12.2 ton/hr (tested parameter)	Recordkeeping of pulp throughput per 8-hour block	
EU006 (Pellet Cooler)	PM <sub>10</sub> $\leq$ 0.50 lb/hr from each stack (1.0 lb/hr total) (modeling limit) PM variable with airflow (Minn. R. 7011.0715)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M	EU006 is an "other" PSEU, so the PM/PM <sub>10</sub> control equipment (CE009 and CE010) are CAM units, subject to monitoring once per 24 hour period
	PM <sub>10</sub> control efficiency: $\geq$	None	It is not practical to test inlet and

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	99% PM control efficiency: $\geq$ 99% (required to meet limits)		outlet loading of the control device. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU007 (Pulp Pellet loadout)	$PM_{10} \leq 1.89$ lb/hr (modeling limit)	Control Equipment O & M	EU007 is not subject to CAM, since uncontrolled particulate matter emissions are less than 100 tpy. The calculated emissions based on the published AP-42 emission factor for animal feed pellet loadout are less than 1% of the permitted limit; violation of the permitted limit is unlikely
	$PM_{10}$ control efficiency: $\geq$ 99% PM control efficiency: $\geq$ 99% (required to meet limits) PM control efficiency: $\geq$ 80% (Minn. R. 7011.1005)	None	It is not practical to test inlet and outlet loading of the control device. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU008, EU009 (GP002, Lime Kilns)	$PM_{10} \leq 4.36$ lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0610)	Performance testing for PM, $PM_{10}$ Control Equipment O & M	EU008 and EU009 are “other” PSEUs, so the PM/ $PM_{10}$ control equipment (CE012) is a CAM unit, subject to monitoring once per 24 hour period
	Lime Throughput $\leq 23.8$ ton/hr (tested parameter)	Recordkeeping of lime throughput, per 8 hour block	
	$NO_x \leq 34.1$ lb/hr (modeling limit)	None	Because most of the emissions are routed internally through a closed-system, the $NO_x$ emissions calculated based on published emission factors and the limited hourly lime throughput are less than the modeled limit.
	Sulfur content of fuel $\leq 0.75\%$ (used to calculate modeled emission rate)	Recordkeeping of Sulfur content of each shipment of fuel.	
	Fuel (coke/coal) Throughput $\leq 1.9$ ton/hr (tested parameter)	Recordkeeping of coke throughput, per 8 hour block	
	$SO_2 \leq 27.0$ lb/hr (startup/uncontrolled)	None	By limiting the sulfur content, the facility is ensured of meeting the

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	(modeling limit) SO <sub>2</sub> ≤ 4.0 lb/MMBtu (Minn. R. 7011.0610)		SO <sub>2</sub> limit without depending on controls
	PM <sub>10</sub> control efficiency: ≥ 99% PM control efficiency: ≥ 99% SO <sub>2</sub> control efficiency: ≥ 75% (required to meet limits)	None	It is not practical to test inlet and outlet loading of the control devices. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU010, EU011 (GP001, Lime Slakers)	PM <sub>10</sub> ≤ 4.82 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0715)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M	EU0010 and EU011 are not subject to CAM, since uncontrolled particulate matter emissions are less than 100 tpy from each unit
	Lime Throughput ≤ 21 ton/hr (tested parameter)	Recordkeeping of lime throughput per 8-hour block.	
	PM <sub>10</sub> control efficiency: ≥ 90% PM control efficiency: ≥ 90% (required to meet limits)	None	It is not practical to test inlet and outlet loading of the control devices. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU012 (A-side Sugar Dryer)	PM <sub>10</sub> ≤ 1.0 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0610)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M	Uncontrolled emissions are less than 100 tpy, so the unit is not subject to CAM.
	PM <sub>10</sub> control efficiency: ≥ 50% PM control efficiency: ≥ 50% (required to meet limits)	None	These are conservative requirements; Minn. R. 7011.0070 allows 80% for PM and 60% for PM <sub>10</sub> without demonstration of compliance.
EU013 (A-side Sugar Cooler)	PM <sub>10</sub> ≤ 0.11 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0715)	Performance testing for PM <sub>10</sub> Control Equipment O & M	Calculated controlled emissions based on AP-42 emission factors for sugar cooling are slightly higher than the modeled emission rate. Testing is required to demonstrate compliance.  Uncontrolled emissions are less than 100 tpy, so the unit is not subject to CAM.
	PM <sub>10</sub> control efficiency: ≥ 99% PM control efficiency: ≥	None	It is not practical to test inlet and outlet loading of the control device. With proper O & M, and provided

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	99% (required to meet limits)		emission limits are met, demonstration of control efficiency is not necessary.
EU014 (B-side Sugar Dryer)	PM <sub>10</sub> ≤ 1.2 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0610)	Performance testing for PM, PM <sub>10</sub> Control Equipment O & M	Uncontrolled emissions are less than 100 tpy, so the unit is not subject to CAM.
	PM <sub>10</sub> control efficiency: ≥ 50% PM control efficiency: ≥ 50% (required to meet limits)	None	These are conservative requirements; Minn. R. 7011.0070 allows 80% for PM and 60% for PM <sub>10</sub> without demonstration of compliance.
EU015 (B-side Sugar Cooler)	PM <sub>10</sub> ≤ 0.59 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0715)	Control Equipment O & M	Calculated controlled emissions based on AP-42 emission factors for sugar cooling are approximately ½ the modeled emission rate. Testing is not required.  EU015 is an “other” PSEU, so the PM <sub>10</sub> control equipment (CE018) is a CAM unit, subject to monitoring once per 24 hour period
	PM <sub>10</sub> control efficiency: ≥ 99% PM control efficiency: ≥ 99% (required to meet limits)	None	It is not practical to test inlet and outlet loading of the control device. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU016 (B-side dust control system)	PM <sub>10</sub> ≤ 1.14 lb/hr (modeling limit) PM variable with airflow (Minn. R. 7011.0715)	Performance testing for PM <sub>10</sub> Control Equipment O & M	Uncontrolled emissions are less than 100 tpy, so the unit is not subject to CAM.  Testing is required to show compliance with modeled PM <sub>10</sub> emission rate.
	PM <sub>10</sub> control efficiency: ≥ 50% PM control efficiency: ≥ 50% (required to meet limits)	None	These are conservative requirements; Minn. R. 7011.0070 allows 80% for PM and 60% for PM <sub>10</sub> without demonstration of compliance.
EU017 (Boiler 3)	NO <sub>x</sub> ≤ 0.075 lb/MMBtu heat input (BACT limit) NO <sub>x</sub> ≤ 0.1 lb/MMBtu heat input (NSPS Subpart Db limit)	NO <sub>x</sub> PEMS	PEMS is an option under the NSPS, and so is used as periodic monitoring for the BACT limit as well.
	PM <sub>10</sub> ≤ 1.0 lb/hr	None	Natural gas usage; potential PM <sub>10</sub>

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	(modeling limit) SO <sub>2</sub> ≤ 0.16 lb/hr (modeling limit)		emissions are less than 0.01 lb/hr, while potential SO <sub>2</sub> emissions are less than 0.001 lb/hr.
EU018 (Waste water ground flare)	PM variable with airflow (Minn. R. 7011.0715)	None	There are modeled emission rates for PM <sub>10</sub> , CO, NO <sub>x</sub> , and SO <sub>2</sub> . However, the ground flare does not lend itself to testing, so there is no way to verify compliance, therefore no reason to put the limits in the permit.
EU022, EU023, EU024, EU025, EU026, (GP003, Dust Control Systems, part 1)	PM <sub>10</sub> vary with the unit (modeling limits) PM variable with air flow (Minn. R. 7011.0715)	Control Equipment O & M	Each unit is controlled by a baghouse. The hourly limits are derived from the modeled emission rates, and correspond to exit grain loadings of 0.05 - 0.1 gr/dscf. If the fabric filters are properly maintained, these should be easily achieved.  The units are “other” PSEUs, so the fabric filters are CAM units, subject to monitoring once per 24 hours.
	PM <sub>10</sub> control efficiency: ≥ 99% PM control efficiency: ≥ 99% (required to meet limits)	None	It is not practical to test inlet and outlet loading of the control device. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU035, EU036, EU037, EU038 (GP003, Dust Control Systems, part 2)	PM <sub>10</sub> vary with the unit (modeling limits) PM variable with air flow (Minn. R. 7011.0715)	Control Equipment O & M Performance testing	Each unit is controlled by a baghouse. The hourly limits are derived from the modeled emission rates, and correspond to exit grain loadings of 0.005 – 0.006 gr/dscf. Testing to demonstrate these rates is justified.  The units are “other” PSEUs, so the fabric filters are CAM units, subject to monitoring once per 24 hour period.
	PM <sub>10</sub> control efficiency: ≥ 99% PM control efficiency: ≥ 99% (required to meet limits)	None	It is not practical to test inlet and outlet loading of the control device. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU031 (Pulp Pellet loadout)	PM <sub>10</sub> ≤ 1.71 lb/hr (modeling limit)	Control Equipment O & M	EU031 is an “other” PSEU, so the PM/PM <sub>10</sub> control equipment (CE032) is a CAM units, subject to monitoring once per 24 hour period.



<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
			The calculated emissions based on the published AP-42 emission factor for animal feed pellet loadout are less than 1% of the permitted limit; violation of the permitted limit is unlikely
	Pellet Loadout $\leq$ 191 ton/hr (tested parameter)	Recordkeeping of pellet loadout per 8-hour block.	
	PM <sub>10</sub> control efficiency: $\geq$ 99% PM control efficiency: $\geq$ 99% (required to meet limits)	None	It is not practical to test inlet and outlet loading of the control device. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.
EU032, EU033, EU034 (GP007, Multiclone Hoppers)	PM variable with air flow (Minn. R. 7011.0715)	Control Equipment O & M	The controlled emissions go to the Pulp Dryer stacks, which have testing requirements of their own. The emissions due to these hoppers will be “buried” in the PM emissions from the pulp dryers.  The PM control (fabric filters) is not subject to CAM, is instead subject to “regular” periodic monitoring.
	PM10 control efficiency: $>$ 99% PM control efficiency: $>$ 99% (required to meet limits)	None	It is not practical to test inlet and outlet loading of the control device. With proper O & M, and provided emission limits are met, demonstration of control efficiency is not necessary.

### 3.4 Insignificant Activities

American Crystal Sugar – East Grand Forks has several operations which are classified as insignificant activities. These are listed in Appendix C to the permit.

The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities.

A change to the permit is the units formerly listed in GP004. These are conditionally insignificant activities under Minn. R. 7008.4110. The reason they were included in Table A of the permit was to document the modeled emission rates. However, the modeled emission rates are documented in Appendix B of the permit, and the operations themselves are listed in Appendix C of the permit. To eliminate redundancy, since no additional periodic monitoring is required, GP004 was removed from the permit.

**Table 7. Insignificant Activities**

<b>Insignificant Activity</b>	<b>General Applicable Emission limit</b>	<b>Discussion</b>
Fuel use: space heaters fueled by, kerosene, natural gas, or propane <ul style="list-style-type: none"> <li>○ Permittee operates space heaters described by the rule</li> </ul>	PM $\leq$ 0.6 or 0.4 lb/MMBtu, depending on year constructed Opacity $\leq$ 20% with exceptions (Minn. R. 7011.0510/515)	For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that it could violate the applicable requirement. In addition, these types of units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Non –hazardous VOC storage tanks with a combined total tankage capacity $\leq$ 10000 gallons of non-hazardous VOC and with a vapor pressure of $\leq$ 1.0 psia at 60 °F. <ul style="list-style-type: none"> <li>○ Permittee has petroleum liquid storage tanks meeting these parameters</li> </ul>	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0715)	These tanks are unlikely to emit particulate matter.
Individual units with actual emissions less than 2000 lb/year of certain pollutants <ul style="list-style-type: none"> <li>○ EU019 – ash conveying system (PTE 0.7 tpy PM<sub>10</sub>)</li> </ul>	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0715)	This is an ash conveying unit. Ash from the boilers and ESPs is collected by a transfer system (cyclone deposits ash into a hopper; does not exhaust to air), cyclone exhausts to a wet scrubber, which in turn exhausts to atmosphere.
Equipment venting PM/PM <sub>10</sub> inside a building, provided that emissions from the equipment are: <ul style="list-style-type: none"> <li>a). filtered through an air cleaning system; and</li> <li>b). vented inside of the building 100% of the time</li> <li>○ EU027 Tote Station</li> </ul>	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0715)	For these units, it is highly unlikely that they could violate the applicable requirement. In addition, these units are vented inside a building, so testing for PM or opacity is not feasible.

### 3.5 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Delta guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be tracked (e.g., limits, submittals, etc.), should be in Table A or B. The main reason is that the appendices are word processing sections and are not part of the tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

### 3.6 Comments Received

Public Notice Period: 08/06/09 – 09/04/09  
 EPA 45-day Review Period: 08/06/09 – 09/21/09

Comments were not received from the public during the public notice period. Comments were not received from EPA during their review period. No changes to the permit were made after the start of the public comment period.

#### **4. Conclusion**

Based on the information provided by American Crystal Sugar Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 11900002-005 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Toni Volkmeier (permit writer/engineer)  
Rachel Peters (enforcement)  
Sean O'Connor (stack testing)  
Dennis Becker/Melissa Sheffer (modeling)  
John Chikkala (peer reviewer)  
Laurie O'Brien (support staff)

Attachments:

1. CAM Plans
2. NSR Analyses – Emissions Increases
3. PTE Summary and Emissions Calculation Spreadsheets
4. Facility Description and CD-01 Forms
5. Modeling Output Files