

AIR EMISSION PERMIT NO. 01300006- 001

IS ISSUED TO

ARCHER DANIELS MIDLAND COMPANY

ADM - Mankato
2019 3rd Avenue
Mankato, Blue Earth County, MN 56001

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date
Total Facility Operating Permit	07/23/2002
Major Permit Amendment	03/19/2004

This permit 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.

Permit Type: Federal; Pt 70/NSR Authorization

Authorization to Construct and Operate (40 CFR § 52.21) Issuance Date: June 7, 2005

Authorization to Construct and Operate (40 CFR § 52.21) Effective Date: June 7, 2005

Final Permit Issuance Date: June 28, 2005

Expiration: June 28, 2010
All Title I Conditions do not expire.

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial Division

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

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

FACILITY DESCRIPTION:

ADM owns and operates a soybean crushing and vegetable oil refining operation located in Mankato, Minnesota. The facility consists of emission units related to soybean receiving, storage processing, solvent extraction/recovery, meal processing, oil refining, and steam production. The facility receives raw soybeans and processes them using hexane to extract soybean oil. The crude soybean oil is separated from the hexane and is further refined, deodorized, hydrogenated, stored, loaded and shipped. The remaining material is processed into meal by desolventizing, drying and cooling. The meal is stored prior to shipping to customers as animal feed.

The main sources of emissions from the facility are Particulate Matter (PM), Particulate Matter less than 10 microns in size (PM₁₀), Volatile Organic Compounds (VOC), Sulfur Dioxide (SO₂), Carbon Monoxide (CO), Nitrogen Oxides (NO_x) and Hazardous Air Pollutant (HAP). PM/PM₁₀ emissions are emitted from the handling and processing of the beans, the meal system and the refinery. PM/PM₁₀, SO₂, CO, NO_x and VOC emissions are emitted from the boilers. Hexane emissions are emitted from the hexane extraction and recovery systems. The facility is a major source under federal New Source Review (NSR), federal Operating Program (40 CFR pt. 70) and federal National Emission Standards for Hazardous Air Pollutants (NESHAPs, 40 CFR pt. 63)

The major modification allowed by this permit action allows ADM to make modifications to existing equipment and add equipment to expand the facility's crush capacity. Soybean preparation changes will include additional bean cleaning equipment, a new bean heater, installation of a baghouse on the existing drying/cracking/dehulling/condition system, additional cracking, dehulling, flaking, and hull grinding and conveying equipment. Meal conveying will be upgraded to handle the increased meal capacity. The grain elevator will have a larger capacity conveyor and undergo aspiration modifications.

TABLE A: LIMITS AND OTHER REQUIREMENTS

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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
A. TOTAL FACILITY OPERATIONAL LIMITATION	hdr
Hexane: less than or equal to 246,375 gallons/year using 12-month Rolling Sum based on Hexane usage.	Title I Condition: CAAA of 1990; BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Volatile Organic Compounds: less than or equal to 0.15 Other using 12-month Rolling Average solvent loss ratio (SLR) (Other is defined as gallons/ton).	Title I Condition: CAAA of 1990; BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall record, and maintain the total hexane usage. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for CAAA of 1990; BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Daily Recordkeeping: On each day of operation, the Permittee shall record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping and Calculation of Production: By the end of each calendar month, following an operating month, calculate and record the soybean throughput for the previous month and the 12-month Rolling Sum. An operating month is any calendar month with at least one normal operating period. It does not include malfunction period. A normal operating period is defined in 40 CFR Section 63.2872.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5
C. COMPLIANCE DETERMINATION PROCEDURES FOR CONSENT DECREE (signed by U.S. District Court Judge Harold Baker of the Central District of Illinois on August 21, 2003)	hdr
SLR LIMIT: Compliance with the VOC SLR limit shall be determined in accordance with 40 CFR Part 63, Subpart GGGG with the following exceptions: 1) Provisions pertaining to HAP content shall not apply. 2) Monitoring and recordkeeping of solvent losses shall be conducted daily. 3) Solvent losses and quantities of oilseed produced during startup and shutdown periods shall not be excluded in determining solvent losses. 4) Records shall be kept in the form of the table provided in the Consent Decree showing total solvent losses, solvent losses during malfunction periods, adjusted solvent losses minus malfunction losses) monthly and on a twelve-month rolling basis.	Title I Condition: CAAA of 1990; BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
MALFUNCTIONS: ADM may apply the provisions of 40 CFR Part 63, Subpart GGGG pertaining to malfunction periods only when the following two conditions are met: 1) The malfunction results in total plant shutdown. A "total plant shutdown" means a shutdown of the solvent extraction system. 2) Cumulative solvent losses during malfunction periods at a plant do not exceed 4,000 gallons in a 12-month period. At all other times, ADM must include all solvent losses when determining compliance with its VOC SLR limit. During a malfunction period, ADM shall comply with the startup, shutdown and malfunction (SSM) plan as required under Subpart GGGG for the plant. The solvent loss corresponding to a malfunction period will be calculated as the difference in the total solvent inventories for the day before the malfunction period began and the day the plant resumes normal operation.	Title I Condition: CAAA of 1990; BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Monthly Recordkeeping of Hexane: By the end of each calendar month, following an operating month, calculate and record the hexane usage for the previous month and the 12-month Rolling Sum.	Title I Condition: recordkeeping for CAAA of 1990; BACT Limit 40 CFR Section 52 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
D. OPERATIONAL REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

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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
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment.	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
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 and maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed. Comply with all other requirements listed in Minn. R. 7011.1005.	Minn. R. 7011.1005
Permittee may not operate or maintain a facility that creates a public nuisance.	Minn. R. 7011.1010
Permittee must comply with the control requirements listed in Minn. R. 7011.1015.	Minn. R. 7011.1015
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
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)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not federally enforceable.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
The permittee shall operate in accordance with the facilities Consent Decree requirements (See Appendix).	Title I Condition: CAAA of 1990; Minn. R. 7007.0800, subp. 2
The construction authorization expires 18 months after permit issuance. The Permittee must keep a record of the dates of installation and start-up on site. The Permittee may apply for an extension of the construction authorization deadline by following the Administrative Amendment provisions in Minn. R. 7007.1400.	40 CFR Section 52.21(r)(2), Minn. R. 7007.0800, subp. 2
E. 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)
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	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)
F. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify emissions, emission factors, opacity and develop emission factors.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Performance Test: due before end of each calendar 60 months following Effective Date of Permit to verify emissions, emission factors, opacity and develop emission factors.	Minn. R. 7017.2020, subp. 1
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

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<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2</p>
<p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.</p>	<p>Minn. R. 7017.2025</p>
<p>G. RECORDKEEPING</p>	<p>hdr</p>
<p>Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.</p>	<p>Minn. R. 7007.0800, subp. 5(B)</p>
<p>Recordkeeping: Retain all records at the stationary source, or a designated site, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at the stationary source, or a designated site, include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).</p>	<p>Minn. R. 7007. 0800, subp. 5(C)</p>
<p>H. REPORTING/SUBMITTALS</p>	<p>hdr</p>
<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>	<p>Minn. R. 7019.1000, subp. 3</p>
<p>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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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:</p> <ol style="list-style-type: none"> 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. 	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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.</p>	<p>Minn. R. 7007.1150 through Minn. R. 7007.1500</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

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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 91 days after end of each calendar year following permit issuance (April 1). To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
I. NESHAP REQUIREMENTS	hdr
The Permittee shall comply with the applicable provisions below based on 40 CFR Section 63, subpart GGGG, Solvent Extraction for Vegetable Oil Production.	40 CFR Part 63 MACT Subpart GGGG: Solvent Extraction for Vegetable Oil Production
The Permittee shall not "construct" or "reconstruct" a major source of hazardous air pollutants as defined in 40 CFR Section 63.2, without first obtaining a preconstruction permit.	40 CFR Sections 63.40 to 63.44; Minn. R. 7007.3010
J. EMISSION LIMITS FOR NESHAP	hdr
Compliance Ratio: less than or equal to 1.00 for the previous operating month.	40 CFR Section 63.2840 (c)
Compliance Ratio= [f * (Actual Solvent Loss)]/ [0.64*Allowable Solvent Loss] Where: f = the weighted average volume fraction of HAP in solvent received during the previous 12 operating months, dimensionless. 0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless. Actual Solvent Loss = Quantity of actual solvent loss during previous 12 operating months (gallons) Allowable Solvent Loss = Quantity of soybeans during the pervious 12 operating months (tons) multiplied by [0.2 (gallons /ton) Oilseed solvent loss factor]	40 CFR Section 63.2840
K. GENERAL CALCULATIONS FOR NESHAP and CONSENT DECREE	hdr
Compliance Ratio Calculation: By the end of each calendar month following an operating month, calculate the compliance ratio for the previous 12 operating months. An operating month is any calendar month with at least one normal operating period. It does not include malfunction period. A normal operating period is defined in 40 CFR Section 63.2872.	40 CFR Section 63.2840
Calculation-Actual Solvent loss: By the end of each calendar month following an operating month, calculate the actual extraction solvent loss during the previous operating month using the following. Monthly Actual Solvent (gal) = Summation from i = 1 to n (SOLVb - SOLVe + SOLVr +/- SOLVa) Where: SOLVb = Gallons of solvent in the inventory at the beginning of normal operating period "i" as determined in paragraph (a)(3) of this section. SOLVe = Gallons of solvent in the inventory at the end of normal operating period "i" as determined in 40 CFR Section 63.2853(a)(3). SOLVr = Gallons of solvent received between the beginning and ending inventory dates of normal operating period "i" as determined in 40 CFR 63.2853(a)(4). SOLVa = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period "i" as determined in 40 CFR 63.2853(a)(5), n = Number of normal operating periods in a calendar month.	40 CFR Section 63.2853
Calculation - 12-month Rolling Sum of actual solvent loss: The owner or operator shall calculate the 12-month rolling sum actual solvent loss by summing the 12 most recent actual monthly solvent losses.	40 CFR Section 63.2853
Calculation - Monthly Weight Average HAP Content: By the end of each calendar month following an operating month, calculate weighted average HAP content (volume fraction). The monthly weighted average HAP content is to be determined using the following equation: Monthly Weighted Average HAP Content of Extraction Solvent (volume fraction) = Summation from i = 1 to n (Receivedi * Contenti)/Total Received Where: Receivedi = Gallons of extraction solvent received in delivery "i." Contenti = The volume fraction of HAP in extraction solvent delivery "i." Total Received = Total gallons of extraction solvent received since the end of the previous operating month. n = Number of extraction solvent deliveries since the end of the previous operating month.	40 CFR Section 63.2854

TABLE A: LIMITS AND OTHER REQUIREMENTS

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<p>Calculation: 12-month Weighted Average of HAP Content of Solvent Received using the following:</p> <p>12-Month Weighted Average of HAP Content in Solvent Received (Volume fraction) = $\text{Summation from } i = 1 \text{ to } 12 (\text{Received}_i * \text{Content}_i) / \text{Total Received}$</p> <p>Where Received_i = Gallons of extraction solvent received in operating month "i" as determined in 40 CFR Section 63.2853(a)(4). Content_i = Average volume fraction of HAP in extraction solvent received in operating month "i" as determined in 40 CFR Section 63.2854 (b)(1) Total Received = Total gallons of extraction solvent received during the previous 12 operating months.</p>	<p>40 CFR Section 63.2854</p>
<p>Calculation - Oilseed Quantity Processed: By the end of each calendar month following an operating month, calculated the monthly quantity of each oilseed processed by using the following equation:</p> <p>Monthly Quantity of Oilseed Processed = $\text{Summation from } i = 1 \text{ to } n (\text{SEED}_b - \text{SEED}_e + \text{SEED}_r \pm \text{SEED}_a)$</p> <p>Where SEED_b = Tons of oilseed in the inventory at the beginning of normal operating period "i" as determined in 40 CFR Section 63.2855(a)(3) SEED_e = Tons of oilseed in the inventory at the end of normal operating period "i" as determined in accordance with 40 CFR Section 63.2855(a)(3) SEED_r = Tons of oilseed received during normal operating period "i" as determined in 40 CFR Section 63.2855(a)(4) of this section. SEED_a = Tons of oilseed added or removed from the oilseed inventory during normal operating period "i" as determined in 40 CFR Section 63.2855(a)(5) n = Number of normal operating periods in the calendar month during which this type oilseed was processed.</p>	<p>40 CFR Section 63.2855</p>
<p>Calculation - 12-Month Rolling Sum: Calculate the 12-month rolling sum of the oilseed quantity processed by summing the monthly oilseed quantity processed for the previous 12 operating months.</p>	<p>40 CFR Section 63.2855</p>
<p>Calculation - Capacity Weighted Average for the VOC SLR Limit: $\text{Summation}(\text{Seed}_i * \text{SLR}_i) / \text{Summation}(\text{Seed}_i)$</p> <p>where: Seed_i = Crush capacity of oilseed plant i; and SLR_i = Final SLR Limit for oilseed plant i.</p> <p>Compliance Ratio = $\text{Actual Solvent Loss} / \text{Summation} [(Crush)_i * (\text{SLF}_i)]$</p> <p>Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months excluding any allowable losses during malfunction periods as defined in paragraph 74 of the Consent Decree.</p> <p>Crush_i = Tons of each oil seed type "i" processed during the previous 12 operating months.</p> <p>SLF_i = The corresponding solvent loss factor (gal/ton) for oil seed "i" as listed in Table 1 of 40 CFR Section 63.2840</p>	<p>Title I Condition: CAAA of 1990; BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.0800, subp. 2</p>
<p>L. RECORDKEEPING REQUIREMENTS FOR NESHAP and CONSENT DECREE</p>	<p>hdr</p>
<p>Plan for Demonstrating Compliance: The owner or operator shall develop and implement a written Plan for Demonstrating Compliance. The Plan must include the following :</p> <ol style="list-style-type: none"> 1) a detailed description of the procedures that will be followed to minimize solvent loss, at all times, including normal, startup, shutdown and malfunction (SSM), and non-operating condition; and 2) a detailed description of the method of measurement, measurement frequency, calculations, and quality assurance/quality control plan; recordkeeping, and reporting procedures that will be followed to determine source compliance. 	<p>40 CFR Section 63.2862 (b)</p>
<p>Plan for Startup, Shutdown and Malfunction (SSM): The owner or operator shall develop and implement a written SSM plan. At a minimum, this plan is to include:</p> <ol style="list-style-type: none"> 1) a detailed procedure for operating and maintaining the facility to minimize emissions during any SSM event, periods of non-operation associated with a SSM event, and periods of initial startup operation; and 2) a specified program of corrective action for malfunctioning process and air pollution control equipment; and 3) specified procedures for estimating solvent loss during each such SSM event. 	<p>40 CFR Section 63.2862 (b)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Recordkeeping of Compliance Plans: The owner or operator must have completed the plan for demonstrating compliance and the SSM plan before April 12, 2004 for your facility and keep them on-site and readily available as long as the source is operational.	40 CFR Section 63.2862 (b)
Recording- Solvent Inventory: By the end of each calendar month following an operating month, record the following information for the previous operating month. At a minimum, these records must include: 1. Dates that define each operating status period during a calendar month; 2. The operating status of your source such as normal operation, nonoperating, malfunction period, or exempt operation for each recorded time interval; 3. The gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period; 4. The gallons of all extraction solvent received, purchased, and recovered during each calendar month; 5. All extraction solvent inventory adjustments, additions, or subtractions. You must document the reason for the adjustment and justify the quantity of the adjustment; 6. The total solvent loss for each calendar month, regardless of the source operating status, and 7. The actual solvent loss in gallons for each operating month.	40 CFR Section 63.2862 (c)(1)
Recording - Average HAP Content: By the end of each calendar month following an operating month, record the following information for the average HAP content in the extraction solvent, for the previous operating month: 1. The gallons of extraction solvent received in each delivery; 2. The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent, and 3. The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in 40 CFR 63.2854 (b)(2)	40 CFR Section 63.2862 (c)(2)
Recording - Soybean Processed Weight: At a minimum record the following: 1. The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory; 2. The operating status of your source such as normal operation, nonoperating, malfunction period, or exempt operating for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to the source operating status; 3. The oilseed inventory for the type of listed oilseed that is being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to the source operating status; 4. The tons of each type of listed oilseed received at the affected source each normal operating period;	40 CFR Section 63.2862 (c)(3)
5. All listed oilseed inventory adjustments, additions, or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment; and 6. The tons of each type of listed oilseed processed during each operating month.	CONTINUED: 40 CFR Section 63.2862 (c)(3)
After your source has processed listed oilseed for 12 operating months and you are not operating during an initial start-up as described in 40 CFR Section 63.2850(d)(2), or a malfunction period as described in 40 CFR Section 63.2850(e)(2), you must record the following:	40 CFR Section 63.2862 (d)
Continued Recordkeeping of actual solvent: by the end of the calendar month following each operating month, you must record the 12 operating months rolling sum of the actual solvent loss in gallons.	40 CFR Section 63.2862 (d)(1)
Recordkeeping of fraction of HAP: by the end of the calendar month following each operating month, you must record weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months.	40 CFR Section 63.2862 (d)(2)
Recordkeeping of oilseed processed: by the end of the calendar month following each operating month, you must record the 12 operating months rolling sum of each type of listed oilseed processed in tons.	40 CFR Section 63.2862 (d)(3)
Recordkeeping for compliance ratio: By the end of each calendar month following an operating month, you must record the compliance ratio for each 12 month operating period.	40 CFR Section 63.2862 (d)(4)
Recordkeeping of compliance status: By the end of each calendar month following an operating month, you must record a statement of whether the source is in compliance with all of the requirements of subpart GGGG. This includes a determination of whether you have met all of the applicable requirements in 40 CFR Section 63.2850.	40 CFR Section 63.2862 (d)(5)

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

<p>Recordkeeping of each SSM event: For each SSM event subject to a malfunction period, you must record the following by the end of the calendar month following each month in which a malfunction period occurred:</p> <ol style="list-style-type: none"> 1. A description and date of the SSM event, its duration, and reason it qualifies as a malfunction; 2. An estimate of the solvent loss in gallons for the duration of the malfunction period with supporting document; and 3. A checklist or other mechanism to indicate whether the SSM plan was followed during the malfunction period. 	<p>40 CFR Section 63.2862 (e)</p>
<p>M. REPORTING REQUIREMENTS FOR NESHAP and CONSENT DECREE</p>	<p>hdr</p>
<p>Notification of compliance status: Due no later than 60 days after determining your initial 12 operating months compliance ratio. The notification shall include:</p> <ol style="list-style-type: none"> 1. The name and address of the owner or operator; 2. The physical address of the vegetable oil production process; 3. Each listed oilseed type processed during the 12 calendar months period covered by the report; 4. Each HAP identified under 40 CFR Section 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report; 5. A statement designating the source as a major source of HAP or a demonstration the source qualifies as an area source; 	<p>40 CFR Section 63.2860(d)</p>
<p>6. A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each compliance determination, you must include a certificate that the procedures in the Plan for demonstrating compliance are being followed and compliance ratio is less than or equal to 1.00.</p>	<p>CONTINUED: 40 CFR Section 63.2860(d)</p>
<p>Annual compliance certification: The first annual compliance certification is due 12 calendar months after you submit the notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification.</p> <ol style="list-style-type: none"> (1) The name and address of the owner or operator; (2) The physical address of the vegetable oil production process; (3) Each listed oilseed type processed during the 12 calendar months period covered by the report; (4) Each HAP identified under 40 CFR Section 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report; 	<p>40 CFR Section 63.2861(a)</p>
<ol style="list-style-type: none"> (5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source; and (6) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, you must include a certification of the following: <ol style="list-style-type: none"> (i) You are following the procedures described in the plan for demonstrating compliance and (ii) The compliance ratio is less than or equal to 1.00. 	<p>CONTINUED 40 CFR Section 63.2861 (a)</p>
<p>Notification of Deviation Report: The deviation notification report must be submitted for each operating month, in which the compliance ratio exceeds 1.00. The report must be submitted by the end of the month following the calendar month in which the deviation occurred. This report must include the compliance ratio comprising the deviation.</p> <ol style="list-style-type: none"> (1) The name and address of the owner or operator; (2) The physical address of the vegetable oil production process; (3) Each listed oilseed type processed during the 12 operating months period for which you determined the deviation; and (4) The compliance ratio comprising the deviation. You may reduce the frequency of submittal of the deviation notification report if the agency responsible for these NESHAP does not object as provided in 40 CFR Section 63.10(e)(3)(iii). 	<p>40 CFR Section 63.2861(b)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato
 Permit Number: 01300006 - 001

<p>Periodic SSM Report: By the end of the calendar month, submit a periodic startup, shutdown or malfunction (SSM) report for the previous month during which the source has been operated under an initial startup period or a malfunction period. The SSM report must include the following:</p> <ol style="list-style-type: none"> 1. The name, title, and signature of the source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan; 2. A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup or malfunction period; 3. An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation. 	<p>40 CFR Section 63.2861(c)</p>
<p>Immediate SSM Reports: Within 2 working days after commencing actions inconsistent with the SSM plan, submit an immediate SSM report consisting of a telephone call or facsimile transmission followed by a letter within 7 working days of the event. The SSM report must include the following:</p> <ol style="list-style-type: none"> 1. The name, title, and signature of the source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM Plan; 2. A description and date of the SSM event, its duration, and reason it qualifies as a SSM; and 3. An estimate of the solvent loss for the duration of the SSM event with supporting documentation. 	<p>40 CFR Section 63.2861(d)</p>
<p>Records on-site:</p> <p>(a) Your records must be in a form suitable and readily available for review in accordance with 40 CFR Section 63.10(b)(1);</p> <p>(b) As specified in 40 CFR Section 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and</p> <p>(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with 40 CFR Section 3.10(b)(1). You can keep the records off-site for the remaining 3 years.</p>	<p>40 CFR Section 63.2863</p>
<p>N. LEAK DETECTION AND CORRECTION PROGRAM</p>	<p>hdr</p>
<p>The Permittee shall demonstrate compliance with the Leak Detection and Correction program as found in the Appendix C. If necessary, the permittee shall demonstrate compliance with 40 CFR Section 60.482.</p>	<p>Title I Condition: CAAA of 1990; BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2</p>
<p>O. MODELING REQUIREMENTS</p>	<p>hdr</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato
 Permit Number: 01300006 - 001

Subject Item: GP 001 Fabric Filter Control Equipment: 99% Effective Control

- Associated Items:**
- CE 070 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 071 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 073 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 075 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 079 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 081 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 082 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 083 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 084 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 085 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 089 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 090 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 091 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 092 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 093 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 094 Fabric Filter - High Temperature, i.e., T>250 Degrees F
 - CE 095 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 097 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 102 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
A. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 8 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 Permittee shall record the pressure drop once every 24 hours when in operation. The Permittee shall install instrumentation to measure the pressure drop across the baghouse.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
Visible Emissions: The Permittee shall check the fabric filter stack 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.	Minn. R. 7007.0800, subp. 4 and 5
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
B. MONITORING AND RECORDKEEPING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

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	Minn. R. 7007.0800, subp. 4 and 5
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 & 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
Periodic Inspections: At least once per calendar year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 002 Cyclone Units: 80% Effective Control

- Associated Items:**
- CE 015 Centrifugal Collector - High Efficiency
 - CE 072 Centrifugal Collector - High Efficiency
 - CE 074 Centrifugal Collector - High Efficiency
 - CE 076 Centrifugal Collector - High Efficiency
 - CE 077 Centrifugal Collector - High Efficiency
 - CE 080 Centrifugal Collector - High Efficiency
 - CE 096 Centrifugal Collector - High Efficiency
 - CE 098 Centrifugal Collector - High Efficiency
 - CE 101 Centrifugal Collector - High Efficiency
 - CE 105 Centrifugal Collector - High Efficiency
 - CE 106 Centrifugal Collector - High Efficiency

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
A. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 80 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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 80 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
The Permittee shall operate and maintain the cyclone at all times that any emission unit controlled by the cyclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
The Permittee shall operate and maintain the cyclone in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Visible Emissions: The Permittee shall check the cyclone stack for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subp. 4 and 5
B. MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 4 and 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the cyclone or any of its components are found during the inspections to need repair. Corrective actions shall return the operation 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 cyclone. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 & 14
Periodic Inspections: At least once per calendar year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 003 Fabric Filter Control Equipment: 89% Effective Control

- Associated Items:**
- CE 067 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 068 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 069 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 086 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 087 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 - CE 088 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
A. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 89 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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 89 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
Pressure Drop: greater than or equal to 1.5 inches of water column and less than or equal to 8 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 Permittee shall record the pressure drop once every 24 hours when in operation. The Permittee shall install instrumentation to measure the pressure drop across the baghouse.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
Visible Emissions: The Permittee shall check the fabric filter stack 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.	Minn. R. 7007.0800, subp. 4 and 5
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
B. MONITORING AND RECORDKEEPING	hdr
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	Minn. R. 7007.0800, subp. 4 and 5
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 & 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
Periodic Inspections: At least once per calendar year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 004 Fabric Filter Control Equipment: 99% Effective Control

Associated Items: CE 061 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 062 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 063 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
A. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
Pressure Drop: greater than or equal to 0 inches of water column and less than or equal to 15 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 Permittee shall record the pressure drop once every 24 hours when in operation. The Permittee shall install instrumentation to measure the pressure drop across the baghouse.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
Visible Emissions: The Permittee shall check the fabric filter stack 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.	Minn. R. 7007.0800, subp. 4 and 5
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
B. MONITORING AND RECORDKEEPING	hdr
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	Minn. R. 7007.0800, subp. 4 and 5
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 & 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
Periodic Inspections: At least once per calendar year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 005 Receiving

Associated Items: EU 001 North Pit Drag

EU 002 South Pit Drag

EU 003 Rail Pit Drag

EU 330 Conveyor from Rail Dump to Leg #1

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1685000 tons/year using 12-month Rolling Sum combined.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 006 Legs, Headhouse, Conveying

Associated Items: EU 004 Leg 1

EU 079 Leg 2

EU 081 Leg 5

EU 082 Bintop Conveyor

EU 332 Short Conveyor at Center of Bintop

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1685000 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 007 Dust Storage

- Associated Items:** EU 006 Bin 63 Discharge Auger
 EU 100 Dust Conveyor
 EU 101 Dust Conveyor
 EU 311 Dust Conveyor
 EU 312 Mixed Meal Rotex
 EU 313 Conveyor to Mixed Meal Rotex
 EU 370 Bin 63

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 4,814 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 008 Elevator and Storage

- Associated Items:** EU 083 Day Bin Discharge Auger
 EU 084 Bin 2 Discharge Auger
 EU 085 Bin 4 Discharge Auger
 EU 086 Bin 6 Discharge Auger
 EU 087 Bin 8 Discharge Auger
 EU 088 Bin 10 Discharge Auger
 EU 089 Bin 12 Discharge Auger
 EU 090 Bin 14 Discharge Auger
 EU 091 Bin 16 Discharge Auger
 EU 092 Bin 18 Discharge Auger
 EU 093 Bean Conveyor
 EU 094 Bean Conveyor
 EU 095 Bean Conveyor
 EU 331 Conveyor at Center of Elevator Basement

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1685000 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 009 Bean Storage

- Associated Items:** EU 005 Bean Storage Tank
 EU 080 Leg 3
 EU 097 Drag to/from Big Bean Tank
 EU 098 Conveyor Under Big Bean Tank
 EU 099 Big Bean Tank Leg
 EU 329 Big Bean Tank Short Drag

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 120,000 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 010 Bean Heater

- Associated Items:** EU 273 Bean Heater
 EU 274 Bean Heater Discharge Grate
 EU 275 Leg
 EU 276 Conveyor
 EU 277 Belt Scale
 EU 307 Belt scale overflow auger

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 011 Bean Cleaning

- Associated Items:**
- EU 007 Bean Drag
 - EU 096 Elevator Bean Leg
 - EU 109 Trash Grinder
 - EU 278 Conveyor
 - EU 279 Conveyor
 - EU 280 Bean Cleaner
 - EU 281 Bean Cleaner
 - EU 283 Bean Cleaning Aspirator
 - EU 284 Bean Cleaning Aspirator
 - EU 285 Bean Cleaning Aspirator Fan
 - EU 286 Bean Cleaning Aspirator Cyclone
 - EU 288 Cleaned Bean Leg
 - EU 289 Overs Conveyor
 - EU 290 Fines Conveyor
 - EU 291 Fines Conveyor
 - EU 300 Rotary feeder for east bean cleaning aspirator
 - EU 301 Rotary feeder for west bean cleaning aspirator
 - EU 302 Bean cleaning rotex overs conveyor
 - EU 303 Bean cleaning rotex overs conveyor
 - EU 304 Bean cleaning rotex fines conveyor
 - EU 349 Conveyor from pod grinder to trash dumpster
 - EU 350 Conveyor from pod grinder to trash dumpster

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 012 Cracking, Dehulling, Conditioning

Associated Items: EU 010 EW Dryer
EU 129 Dryer Recirculation Fan
EU 130 Dryer Recirculation Fan
EU 131 Recycle Cyclone
EU 132 Recycle Cyclone
EU 133 Recycle Cyclone
EU 134 Recycle Cyclone
EU 135 Dryer Exhaust Fan
EU 136 Conveyor to Cracking Rolls
EU 137 Overflow Conveyor
EU 138 Cracking Roll
EU 139 Cracking Roll
EU 140 Cracking Roll
EU 141 Cracking Roll
EU 142 Cracking Roll
EU 143 Cracking Roll
EU 144 Cracking Roll
EU 145 Cracking Roll
EU 146 Cracking Roll
EU 147 Primary Aspirator
EU 148 Primary Aspirator
EU 149 Primary Aspirator
EU 150 Primary Aspirator
EU 151 Primary Aspirator
EU 152 Primary Aspirator
EU 153 Primary Aspirator
EU 154 Primary Aspirator
EU 155 Cracked Bean Conveyor
EU 156 Cracked Bean Conveyor
EU 157 EW Conditioner
EU 158 EW Conditioner Fan
EU 159 Primary Aspirator Fan
EU 253 Conveyor
EU 254 Conveyor
EU 255 Cracking Roll
EU 256 Cracking Roll
EU 257 Cracking Roll
EU 258 Cracking Roll
EU 260 Conveyor
EU 261 Primary Aspirator Fan
EU 262 Conveyor
EU 263 Conveyor
EU 264 Conveyor
EU 296 Primary Aspirator
EU 297 Primary Aspirator

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

- Associated Items:** EU 298 Primary Aspirator
 EU 299 Primary Aspirator
 EU 305 EW dryer rock screw #1
 EU 306 EW dryer rock screw #2

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 013 Flaking Rolls

- Associated Items:**
- EU 011 Flaker
 - EU 012 Flaker
 - EU 013 Flaker
 - EU 066 Flaker
 - EU 067 Flaker
 - EU 068 Flaker
 - EU 069 Flaker
 - EU 070 Flaker
 - EU 071 Flaker
 - EU 072 Flaker
 - EU 073 Flaker
 - EU 074 Flaker
 - EU 075 Flaker
 - EU 076 Flaker
 - EU 077 Flaker
 - EU 078 Flaker
 - EU 160 Conveyor to Flakers
 - EU 161 Conveyor from Flakers
 - EU 162 Flaker Aspiration Fan
 - EU 163 Conveyor to Flakers
 - EU 164 Conveyor from Flakers
 - EU 165 Conveyor from Flakers
 - EU 166 Flaker Aspiration Fan
 - EU 167 Conveyor to Flakers
 - EU 168 Conveyor to Flakers
 - EU 169 Conveyor from Flakers
 - EU 265 Conveyor to Flakers
 - EU 266 Conveyor to Flakers
 - EU 267 Flaker
 - EU 268 Flaker
 - EU 269 Flaker
 - EU 270 Flaker
 - EU 271 Conveyor from Flakers
 - EU 272 Flaker Aspiration Fan
 - EU 308 Crack catcher conveyor under Buhler flakers
 - EU 309 Crack catcher crossover conveyor
 - EU 310 Crack catcher conveyor to H-30

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

<p>Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.</p>	<p>Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5</p>
<p>Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.</p>	<p>Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 014 Hull Grinding

- Associated Items:** EU 015 Hull Grinder
 EU 064 Hull Grinder
 EU 171 Drag to Grinders
 EU 172 Hull Grinder Fan
 EU 347 Rotary feeder for west hull grinder
 EU 348 Rotary feeder for east hull grinder
 EU 367 Hull Grind Cyclone

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 015 Hull Sifting

- Associated Items:**
- EU 014 Hull Sifting Table
 - EU 063 Hull Sifting Table
 - EU 102 Conveyor
 - EU 114 Conveyor to Hull Rotexes
 - EU 115 Conveyor from Dryer Cyclones to H-40
 - EU 116 Hull Bypass Screw
 - EU 117 Cyclone
 - EU 118 Cyclone
 - EU 119 Cyclone
 - EU 120 Cyclone
 - EU 121 Hull Fan
 - EU 122 Hull Fan
 - EU 123 Hull Fan
 - EU 124 Hull Fan
 - EU 125 Conveyor from Aspirators
 - EU 292 Distribution Conveyor
 - EU 293 Rotex Feeder
 - EU 294 Rotex Feeder
 - EU 295 Hull Sifting Table
 - EU 320 Conveyor from dehull filter to hull surge bin
 - EU 321 Short dust auger from 450 to inside millfeed bins
 - EU 363 Conveyor from H-1 to H-3

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 016 Pellet Mill/Cooler

- Associated Items:** EU 016 Pellet Mill
 EU 173 Pellet Mill Feeder
 EU 174 Pellet Mill Mixer
 EU 175 Pellet Cooler
 EU 176 Pellet L-Path
 EU 177 Conveyor
 EU 178 Pellet Cooler Fan

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 75,000 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 017 Pellet Storage

- Associated Items:**
- EU 017 Bintop Drag
 - EU 018 Pellet Bin
 - EU 180 Leg
 - EU 181 Bintop Conveyor
 - EU 182 Bintop Conveyor
 - EU 205 Conveyor under Millfeed Bins
 - EU 206 Conveyor to Leg 115
 - EU 207 Millfeed Leg
 - EU 218 L-Path
 - EU 314 Pellets from 266 to T-52
 - EU 315 Millfeed conveyor from surge bin to T-52
 - EU 316 Pellet auger from 276 to T-52
 - EU 317 Millfeed mixer
 - EU 319 Millfeed conveyor from elevator to inside bins

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 75,000 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 018 DTDC

Associated Items: EU 020 DTDC

EU 183 New York Blower

EU 184 New York Blower

EU 324 DC cyclone dust auger

EU 325 DC cyclone dust auger

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
The Permittee shall optimize the efficiency to minimize emissions.	Title I Condition: BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
On a monthly basis the permittee shall ensure that the equipment is optimally operating, minimizing emissions, through recordkeeping to document appropriate monitoring, recordkeeping and maintenance as established through the manufacturer and testing results.	Title I Condition: recordkeeping for the BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 019 Meal Conveying

- Associated Items:**
- EU 021 Meal Conveyer
 - EU 185 Meal L-Path
 - EU 186 Meal Drag
 - EU 188 Meal Conveyor over Sifters
 - EU 193 Fines Conveyor
 - EU 194 Meal Conveyor
 - EU 198 Meal Conveyor
 - EU 199 Meal Conveyor
 - EU 200 Meal Conveyor
 - EU 201 Meal Conveyor
 - EU 202 Meal Conveyor
 - EU 203 Meal Conveyor
 - EU 204 Meal Conveyor
 - EU 322 Hubbard bin feeder
 - EU 323 Hubbard incline hull mixer
 - EU 342 Dust auger from Prep meal filter to 351 meal conveyor

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 020 Meal Sifting/Grinding

- Associated Items:**
- EU 022 Meal Grinder 1
 - EU 187 Meal Crusher
 - EU 189 Meal Sifter 1
 - EU 190 Meal Sifter 2
 - EU 191 Meal Sifter 3
 - EU 192 Meal Sifter 4
 - EU 195 Meal Grinder 2
 - EU 196 Meal Grinder 3
 - EU 197 Meal Grinder 4
 - EU 251 Meal Sifter 5
 - EU 343 Rotary feeder for #1 meal grinder
 - EU 344 Rotary feeder for #2 meal grinder
 - EU 345 Rotary feeder for #3 meal grinder
 - EU 346 Rotary feeder for #4 meal grinder

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 021 Bin Top Meal Conveyor

Associated Items: EU 024 Meal Drag on Bintop

EU 179 Meal Leg to Bintop

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 022 Basement Meal Conveyor

- Associated Items:**
- EU 026 Bin 3 Discharge Auger
 - EU 219 Bin 5 Discharge Auger
 - EU 220 Bin 7 Discharge Auger
 - EU 221 Bin 9 Discharge Auger
 - EU 222 Bin 11 Discharge Auger
 - EU 223 Bin 13 Discharge Auger
 - EU 224 Bin 15 Discharge Auger
 - EU 225 Bin 17 Discharge Auger
 - EU 226 Drag under Meal Bins
 - EU 227 Drag under Meal Bins
 - EU 228 Incline Drag to Truck Leg
 - EU 229 Truck Leg
 - EU 230 Conveyor under Bin
 - EU 231 Conveyor under Meal Bins
 - EU 232 Conveyor under Meal Bins
 - EU 233 Drag Out of Elevator
 - EU 234 Incline Conveyor
 - EU 235 Rail Leg
 - EU 333 Bin 3 feeder for rail loading
 - EU 334 Bin 5 feeder for rail loading
 - EU 335 Bin 7 feeder for rail loading
 - EU 336 Bin 9 feeder for rail loading
 - EU 337 Bin 11 feeder for rail loading
 - EU 338 Bin 13 feeder for rail loading
 - EU 339 Conveyor under Bin 13 for transferring pellets to Prep
 - EU 340 Auger from meal recycle hopper to T-19
 - EU 341 Meal recycle hopper

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1642500 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato
 Permit Number: 01300006 - 001

- Subject Item:** GP 023 Meal Storage
- Associated Items:** EU 025 Drag to Truck Loading Bins
 EU 209 Meal Bin/Feeder
 EU 210 Meal Mixer
 EU 211 Truck Loading Drag
 EU 212 Hull Mixer
 EU 213 Meal Drag
 EU 214 Pellet Bin/Feeder
 EU 215 Meal Bin/Feeder
 EU 216 Meal Mixer
 EU 217 Meal Drag
 EU 318 Millfeed auger to truck 44% mixer

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1404430 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 024 Bentonite Receiving/Storage

- Associated Items:** EU 023 Bin 65 Discharge Auger
 EU 208 Clay Conveyor
 EU 326 Clay auger to rail loading
 EU 327 Clay conveyor
 EU 328 Clay conveyor
 EU 371 Bin 65

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 6,300 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 025 Truck/Rail Meal Loadout

Associated Items: EU 027 Loadout Conveyor

EU 028 Loadout Conveyor

EU 236 Loadout Conveyor

EU 237 Rail Mixer

EU 238 Conveyor over Rail Cars

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 1399574 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 026 Refinery

- Associated Items:**
- EU 048 Bleaching Clay Silo
 - EU 049 Filter Aid Silo
 - EU 050 Adsorbent Storage
 - EU 051 Bleaching Clay Slurry Tank
 - EU 053 Filter Aid Precoat Tank
 - EU 054 Adsorbent Slurry Tank
 - EU 055 Bleaching Clay Daybin
 - EU 056 Filter Aid Daybin
 - EU 057 Adsorbent Daybin
 - EU 058 Reformer
 - EU 059 Steam Generator A
 - EU 060 Steam Generator B
 - EU 243 Rail Blower
 - EU 245 Silo Discharge Conveyor
 - EU 246 Dosing Tube
 - EU 248 Silo Discharge Conveyor
 - EU 250 Silo Discharge Conveyor

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 390,000 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	hdr
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 027 Boilers #3 and #4

Associated Items: EU 040 Boiler No. 3

EU 042 Boiler No. 4

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
The following requirements of this Group apply separately to each item listed under this Group.	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input using 3-hour Rolling Average	Minn. R. 7011.0515, subp. 1
Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input using 3-hour Rolling Average	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
The Permittee shall comply with the requirements of 40 CFR pt. 63, subp. DDDDD.	40 CFR pt. 63, subp. DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
B. OTHER LIMITS AND REQUIREMENTS	hdr
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight of fuel oil, by definition.	Minn. R. 7007.0800, subp. 2
Fuel Type: Natural gas and Fuel oil only.	Minn. R. 7007.0800, subp. 2
Visible Emissions: The Permittee shall check the associated stack for visible emissions during daylight hours, while burning fuel oil.	Minn. R. 7007.0800, subp. 4
Capacity: less than or equal to 76 million Btu's/hour	Minn. R. 7007.0800, subp. 2
C. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping: On each day of operation, the Permittee shall record and maintain the total fuel use and the type of fuel.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Fuel Use. By the end of each calendar month, the Permittee shall calculate and record the following: 1) The total fuel use for the previous calendar month using the daily usage records. 2) The type of fuel used for the previous calendar month using the daily usage records. 3) The 12-month rolling sum total fuel use for the previous 12-month period by summing the monthly total fuel use data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed.	Minn. R. 7007.0800, subps. 4 and 5
Recordkeeping of Corrective Actions: The Permittee shall record the corrective actions taken, as soon as possible as based on the operation and maintenance plan to eliminate any visible emissions.	Minn. R. 7007.0800, subps. 4 and 5
Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of fuel oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 028 Grain Dryer

Associated Items: EU 008 Grain Dryer

EU 364 Berico Wet Bean Leg

EU 365 Berico Dry Bean Leg

EU 366 Bintop Short Conveyor

What to do	Why to do it
A. OPERATIONAL LIMITATION	hdr
Process Throughput: less than or equal to 75,000 tons/year using 12-month Rolling Sum .	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2
The following requirements of this Group apply separately to each item listed under this Group.	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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input	Minn. R. 7011.0610, subp. 2(B)
The perforations of the column dryer screen must not exceed 3/32 inches in diameter; and the emissions from a rack dryer must pass through a 50-mesh screen enclosure before discharge to the atmosphere.	Minn. R. 7011.1005, subp. 5
B. RECORDKEEPING FOR OPERATIONAL LIMITATION	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total process throughput. This shall be based on throughput logs, meters, and/or delivery records.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5
Monthly Recordkeeping -- Process Throughput Limit. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total process throughput for the previous calendar month using the daily usage records. 2) The 12-month rolling sum total process throughput for the previous 12-month period by summing the monthly total process throughput data for the previous 12 months.	Title I Condition: recordkeeping for the limit to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800 subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: GP 029 Associated Boiler #5 Operations

- Associated Items:** EU 359 Crusher
 EU 360 Baghouse Discharge Screw
 EU 361 South Ash Screw
 EU 362 North Sand Screw (used to empty boiler)
 EU 369 Crusher

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
If exhaust gases from any enclosed coal handling facility exceed 20 percent opacity, then the owner or operator of such facility shall select and implement one of the following further controls:	Minn. R. 7011.1105, subp. G
(continued) Install an exhaust air system and control Total Particulate Matter: less than or equal to 0.020 grains/dry standard cubic foot	Minn. R. 7011.1105, subp. G (continued)
(continued) Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.1105, subp. G (continued)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE094) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 001 North Truck Soybean Receiving

Associated Items: EU 001 North Pit Drag

EU 098 Conveyor Under Big Bean Tank

EU 099 Big Bean Tank Leg

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Opacity: less than or equal to 5 percent opacity for fugitive emissions from railcar/truck unloading operations and material handling operations.	Minn. R. 7011.1005, subp. 3A and 40 CFR 60.302(c)(1)
Opacity: less than or equal to 10 percent opacity from control equipment.	Minn. R. 7011.1005, subp. 3D
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.	Minn. R. 7011.0715, subp. 1(A)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE067) shall be operated at all times when the emission unit is in operation. See GP003 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 002 South Truck Soybean Receiving

Associated Items: EU 002 South Pit Drag

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Opacity: less than or equal to 5 percent opacity for fugitive emissions from railcar/truck unloading operations and material handling operations.	Minn. R. 7011.1005, subp. 3A
Opacity: less than or equal to 10 percent opacity from control equipment.	Minn. R. 7011.1005, subp. 3D
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.	Minn. R. 7011.0715, subp. 1(A)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE068) shall be operated at all times when the emission unit is in operation. See GP003 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 003 Truck/Rail Soybean Receiving

Associated Items: EU 003 Rail Pit Drag

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot	40 CFR 60.302(b)(1) and Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 0 percent	40 CFR 60.302(b)(1) and Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 5 percent opacity for fugitive emissions from railcar/truck unloading operations and material handling operations.	Minn. R. 7011.1005, subp. 3A
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE069) shall be operated at all times when the emission unit is in operation. See GP003 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 004 Elevators and Storage

- Associated Items:**
- EU 004 Leg 1
 - EU 079 Leg 2
 - EU 080 Leg 3
 - EU 081 Leg 5
 - EU 082 Bintop Conveyor
 - EU 083 Day Bin Discharge Auger
 - EU 084 Bin 2 Discharge Auger
 - EU 085 Bin 4 Discharge Auger
 - EU 086 Bin 6 Discharge Auger
 - EU 087 Bin 8 Discharge Auger
 - EU 088 Bin 10 Discharge Auger
 - EU 089 Bin 12 Discharge Auger
 - EU 090 Bin 14 Discharge Auger
 - EU 091 Bin 16 Discharge Auger
 - EU 092 Bin 18 Discharge Auger
 - EU 093 Bean Conveyor
 - EU 094 Bean Conveyor
 - EU 095 Bean Conveyor
 - EU 097 Drag to/from Big Bean Tank
 - EU 329 Big Bean Tank Short Drag
 - EU 330 Conveyor from Rail Dump to Leg #1
 - EU 331 Conveyor at Center of Elevator Basement
 - EU 332 Short Conveyor at Center of Bintop
 - EU 364 Berico Wet Bean Leg
 - EU 365 Berico Dry Bean Leg
 - EU 366 Bintop Short Conveyor

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE070) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 005 Bean Storage Tank**Associated Items:** EU 005 Bean Storage Tank

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 006 Dust Storage**Associated Items:** EU 370 Bin 63

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE071) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 007 Hull Sifting Tables

- Associated Items:**
- EU 014 Hull Sifting Table
 - EU 063 Hull Sifting Table
 - EU 102 Conveyor
 - EU 109 Trash Grinder
 - EU 114 Conveyor to Hull Rotexes
 - EU 115 Conveyor from Dryer Cyclones to H-40
 - EU 116 Hull Bypass Screw
 - EU 117 Cyclone
 - EU 118 Cyclone
 - EU 119 Cyclone
 - EU 120 Cyclone
 - EU 121 Hull Fan
 - EU 122 Hull Fan
 - EU 123 Hull Fan
 - EU 124 Hull Fan
 - EU 125 Conveyor from Aspirators
 - EU 292 Distribution Conveyor
 - EU 293 Rotex Feeder
 - EU 294 Rotex Feeder
 - EU 295 Hull Sifting Table
 - EU 320 Conveyor from dehull filter to hull surge bin
 - EU 321 Short dust auger from 450 to inside millfeed bins
 - EU 363 Conveyor from H-1 to H-3

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 10 percent opacity from control equipment.	Minn. R. 7011.1005, subp. 3D
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE073) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 009 Drying Cracking/Dehulling/Conditioning

Associated Items: EU 010 EW Dryer
EU 129 Dryer Recirculation Fan
EU 130 Dryer Recirculation Fan
EU 131 Recycle Cyclone
EU 132 Recycle Cyclone
EU 133 Recycle Cyclone
EU 134 Recycle Cyclone
EU 135 Dryer Exhaust Fan
EU 136 Conveyor to Cracking Rolls
EU 137 Overflow Conveyor
EU 138 Cracking Roll
EU 139 Cracking Roll
EU 140 Cracking Roll
EU 141 Cracking Roll
EU 142 Cracking Roll
EU 143 Cracking Roll
EU 144 Cracking Roll
EU 145 Cracking Roll
EU 146 Cracking Roll
EU 147 Primary Aspirator
EU 148 Primary Aspirator
EU 149 Primary Aspirator
EU 150 Primary Aspirator
EU 151 Primary Aspirator
EU 152 Primary Aspirator
EU 153 Primary Aspirator
EU 154 Primary Aspirator
EU 155 Cracked Bean Conveyor
EU 156 Cracked Bean Conveyor
EU 157 EW Conditioner
EU 158 EW Conditioner Fan
EU 159 Primary Aspirator Fan
EU 253 Conveyor
EU 254 Conveyor
EU 255 Cracking Roll
EU 256 Cracking Roll
EU 257 Cracking Roll
EU 258 Cracking Roll
EU 260 Conveyor
EU 261 Primary Aspirator Fan
EU 262 Conveyor
EU 263 Conveyor
EU 264 Conveyor
EU 275 Leg
EU 276 Conveyor

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

- Associated Items:**
- EU 277 Belt Scale
 - EU 296 Primary Aspirator
 - EU 297 Primary Aspirator
 - EU 298 Primary Aspirator
 - EU 299 Primary Aspirator
 - EU 305 EW dryer rock screw #1
 - EU 306 EW dryer rock screw #2
 - EU 307 Belt scale overflow auger

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The cyclone (CE103) shall be operated at all times when the emission unit is in operation. See GP002 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 010 Flaking Rolls

- Associated Items:** EU 067 Flaker
 EU 068 Flaker
 EU 069 Flaker
 EU 070 Flaker
 EU 071 Flaker
 EU 072 Flaker
 EU 073 Flaker
 EU 160 Conveyor to Flakers
 EU 161 Conveyor from Flakers
 EU 162 Flaker Aspiration Fan

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The cyclone (CE076) shall be operated at all times when the emission unit is in operation. See GP002 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 011 Flaking Rolls

- Associated Items:** EU 011 Flaker
 EU 012 Flaker
 EU 013 Flaker
 EU 066 Flaker
 EU 163 Conveyor to Flakers
 EU 164 Conveyor from Flakers
 EU 165 Conveyor from Flakers
 EU 166 Flaker Aspiration Fan
 EU 308 Crack catcher conveyor under Buhler flakers
 EU 309 Crack catcher crossover conveyor
 EU 310 Crack catcher conveyor to H-30

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The cyclone (CE077) shall be operated at all times when the emission unit is in operation. See GP002 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 012 Flaking Rolls

- Associated Items:** EU 074 Flaker
 EU 075 Flaker
 EU 076 Flaker
 EU 077 Flaker
 EU 078 Flaker
 EU 167 Conveyor to Flakers
 EU 168 Conveyor to Flakers
 EU 169 Conveyor from Flakers
 EU 265 Conveyor to Flakers
 EU 266 Conveyor to Flakers
 EU 267 Flaker
 EU 268 Flaker
 EU 269 Flaker
 EU 270 Flaker
 EU 271 Conveyor from Flakers
 EU 272 Flaker Aspiration Fan

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The cyclone (CE105) shall be operated at all times when the emission unit is in operation. See GP002 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 013 Hull Grinders

- Associated Items:** EU 015 Hull Grinder
 EU 064 Hull Grinder
 EU 171 Drag to Grinders
 EU 172 Hull Grinder Fan
 EU 347 Rotary feeder for west hull grinder
 EU 348 Rotary feeder for east hull grinder
 EU 367 Hull Grind Cyclone

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE075) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 014 Pellet Mill/Cooler

- Associated Items:** EU 016 Pellet Mill
 EU 173 Pellet Mill Feeder
 EU 174 Pellet Mill Mixer
 EU 175 Pellet Cooler
 EU 176 Pellet L-Path
 EU 177 Conveyor
 EU 178 Pellet Cooler Fan

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The cyclone (CE080) shall be operated at all times when the emission unit is in operation. See GP002 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 015 Bin Top Meal Conveyor

Associated Items: EU 024 Meal Drag on Bintop

EU 179 Meal Leg to Bintop

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE083) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 016 Pellet Storage**Associated Items:** EU 017 Bintop Drag

EU 018 Pellet Bin

EU 180 Leg

EU 181 Bintop Conveyor

EU 182 Bintop Conveyor

What to do	Why to do it
A. POLLUTANT 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.	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

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 017 Mineral Oil System**Associated Items:** EU 019 Extractor

EU 020 DTDC

What to do	Why to do it
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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
B. OPERATIONAL REQUIREMENTS	hdr
The Cold Water Condenser plus Mineral Oil Absorption System (CE 099) shall be operated at all times when the emission units are in operation.	40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 018 DTDC (Dryer/Cooler)

Associated Items: EU 020 DTDC

EU 183 New York Blower

EU 184 New York Blower

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The cyclones (CE 015, 072, 074, 098, 106) shall be operated at all times when the emission unit is in operation. See GP002 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 019 Conveying to Meal Sifting/Grinding

Associated Items: EU 021 Meal Converyor

EU 185 Meal L-Path

EU 324 DC cyclone dust auger

EU 325 DC cyclone dust auger

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The Baghouse (CE079) shall be operated at all times when the emission unit is in operation. See GP001 for baghouse requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 020 Meal Sifting/Grinders

- Associated Items:**
- EU 022 Meal Grinder 1
 - EU 186 Meal Drag
 - EU 187 Meal Crusher
 - EU 188 Meal Conveyor over Sifters
 - EU 189 Meal Sifter 1
 - EU 190 Meal Sifter 2
 - EU 191 Meal Sifter 3
 - EU 192 Meal Sifter 4
 - EU 193 Fines Conveyor
 - EU 194 Meal Conveyor
 - EU 195 Meal Grinder 2
 - EU 196 Meal Grinder 3
 - EU 197 Meal Grinder 4
 - EU 198 Meal Conveyor
 - EU 199 Meal Conveyor
 - EU 200 Meal Conveyor
 - EU 201 Meal Conveyor
 - EU 202 Meal Conveyor
 - EU 203 Meal Conveyor
 - EU 204 Meal Conveyor
 - EU 205 Conveyor under Millfeed Bins
 - EU 206 Conveyor to Leg 115
 - EU 207 Millfeed Leg
 - EU 251 Meal Sifter 5
 - EU 322 Hubbard bin feeder
 - EU 323 Hubbard incline hull mixer
 - EU 342 Dust auger from Prep meal filter to 351 meal conveyor
 - EU 343 Rotary feeder for #1 meal grinder
 - EU 344 Rotary feeder for #2 meal grinder
 - EU 345 Rotary feeder for #3 meal grinder
 - EU 346 Rotary feeder for #4 meal grinder

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE081) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1
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TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 021 Flowability Agent Unloading and Storage**Associated Items:** EU 371 Bin 65

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE082) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 022 Truck Bins Conveying

- Associated Items:** EU 025 Drag to Truck Loading Bins
 EU 209 Meal Bin/Feeder
 EU 210 Meal Mixer
 EU 211 Truck Loading Drag
 EU 212 Hull Mixer
 EU 213 Meal Drag
 EU 214 Pellet Bin/Feeder
 EU 215 Meal Bin/Feeder
 EU 216 Meal Mixer
 EU 217 Meal Drag
 EU 218 L-Path
 EU 314 Pellets from 266 to T-52
 EU 315 Millfeed conveyor from surge bin to T-52
 EU 316 Pellet auger from 276 to T-52
 EU 317 Millfeed mixer
 EU 318 Millfeed auger to truck 44% mixer

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE084) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 023 Elevator Discharge Meal Conveying

- Associated Items:**
- EU 026 Bin 3 Discharge Auger
 - EU 219 Bin 5 Discharge Auger
 - EU 220 Bin 7 Discharge Auger
 - EU 221 Bin 9 Discharge Auger
 - EU 222 Bin 11 Discharge Auger
 - EU 223 Bin 13 Discharge Auger
 - EU 224 Bin 15 Discharge Auger
 - EU 225 Bin 17 Discharge Auger
 - EU 226 Drag under Meal Bins
 - EU 227 Drag under Meal Bins
 - EU 228 Incline Drag to Truck Leg
 - EU 229 Truck Leg
 - EU 230 Conveyor under Bin
 - EU 231 Conveyor under Meal Bins
 - EU 232 Conveyor under Meal Bins
 - EU 233 Drag Out of Elevator
 - EU 234 Incline Conveyor
 - EU 235 Rail Leg
 - EU 319 Millfeed conveyor from elevator to inside bins
 - EU 333 Bin 3 feeder for rail loading
 - EU 334 Bin 5 feeder for rail loading
 - EU 335 Bin 7 feeder for rail loading
 - EU 336 Bin 9 feeder for rail loading
 - EU 337 Bin 11 feeder for rail loading
 - EU 338 Bin 13 feeder for rail loading
 - EU 339 Conveyor under Bin 13 for transferring pellets to Prep
 - EU 340 Auger from meal recycle hopper to T-19
 - EU 341 Meal recycle hopper

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE085) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 024 Truck Meal Loadout

Associated Items: EU 027 Loadout Conveyor

EU 236 Loadout Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Opacity: less than or equal to 5 percent opacity for fugitive emissions from railcar/truck unloading operations and material handling operations.	Minn. R. 7011.1005, subp. 3A
Opacity: less than or equal to 10 percent opacity from control equipment.	Minn. R. 7011.1005, subp. 3D
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(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 comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE086) shall be operated at all times when the emission unit is in operation. See GP003 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 025 Rail Meal Loadout

Associated Items: EU 028 Loadout Conveyor

EU 237 Rail Mixer

EU 238 Conveyor over Rail Cars

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Opacity: less than or equal to 5 percent opacity for fugitive emissions from railcar/truck unloading operations and material handling operations.	Minn. R. 7011.1005, subp. 3A
Opacity: less than or equal to 10 percent opacity from control equipment.	Minn. R. 7011.1005, subp. 3D
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(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 comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE087) shall be operated at all times when the emission unit is in operation. See GP003 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 026 Coal Receiving/Limestone Receiving/Fly Ash Loadout

- Associated Items:** EU 029 Coal Dump Pits
 EU 030 Coal Dump Receiving Drag
 EU 047 Fly Ash Truck Loadout
 EU 239 Coal Dump Elevating Drag
 EU 240 Drag on top of Silo
 EU 351 Coal Dust Auger
 EU 352 Coal Dust Auger to C-120

What to do	Why to do it
A. POLLUTANT LIMITS AND OPERATIONAL REQUIREMENTS	hdr
Control fugitive particulate emissions during unloading so that fugitive particulate emissions are minimized.	Minn. R. 7011.1105, subp. H
Take reasonable precautions to minimize fugitive emissions. Comply with the requirements of Minn. R. 7011.0150.	Minn. R. 7011.1110
During freezing temperatures, owners or operators shall not be required to apply water or dust suppressants.	Minn. R. 7011.1120
Inspections will be conducted weekly of process buildings, roof areas, coal silos, and coal crusher house on a weekly basis. Cleaning will be conducted if visible product is present within 24 hours.	Minn. R. 7007.0800, subp. 2
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE088) shall be operated at all times when the emission unit is in operation. See GP003 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 027 South Coal Day Bin

Associated Items: EU 035 Coal Daybin

EU 368 Coal Screw to Crusher

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
If exhaust gases from any enclosed coal handling facility exceed 20 percent opacity, then the owner or operator of such facility shall select and implement one of the following further controls:	Minn. R. 7011.1105, subp. G
(continued) Install an exhaust air system and control Total Particulate Matter: less than or equal to 0.020 grains/dry standard cubic foot	Minn. R. 7011.1105, subp. G (continued)
(continued) Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.1105, subp. G (continued)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE093) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 028 Coal/Limestone Silos

Associated Items: EU 032 Coal Silo

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
If exhaust gases from any enclosed coal handling facility exceed 20 percent opacity, then the owner or operator of such facility shall select and implement one of the following further controls:	Minn. R. 7011.1105, subp. G
(continued) Install an exhaust air system and control Total Particulate Matter: less than or equal to 0.020 grains/dry standard cubic foot	Minn. R. 7011.1105, subp. G (continued)
(continued) Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.1105, subp. G (continued)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE090) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 029 Coal/Limestone Transfer

Associated Items: EU 033 Drag under East & Middle Silo

EU 241 Drag under West Silo

EU 242 Bucket Elevator

EU 353 Coal Dust Auger to C-137

EU 354 Coal Precrusher

EU 355 Belt Conveyor

EU 356 Coal Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
If exhaust gases from any enclosed coal handling facility exceed 20 percent opacity, then the owner or operator of such facility shall select and implement one of the following further controls:	Minn. R. 7011.1105, subp. G
(continued) Install an exhaust air system and control Total Particulate Matter: less than or equal to 0.020 grains/dry standard cubic foot	Minn. R. 7011.1105, subp. G (continued)
(continued) Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.1105, subp. G (continued)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE091) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 030 North Coal Day Bin

Associated Items: EU 034 Coal Daybin

EU 357 Coal Screw to Crusher

EU 358 Daybin Cleanout Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
If exhaust gases from any enclosed coal handling facility exceed 20 percent opacity, then the owner or operator of such facility shall select and implement one of the following further controls:	Minn. R. 7011.1105, subp. G
(continued) Install an exhaust air system and control Total Particulate Matter: less than or equal to 0.020 grains/dry standard cubic foot	Minn. R. 7011.1105, subp. G (continued)
(continued) Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.1105, subp. G (continued)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE092) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 031 Limestone Day Bin (Sand Receiving/Limestone/Sand Day Bin)

Associated Items: EU 031 Sand Receiving

EU 036 Sand Daybin

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE089) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 035 Emergency Diesel Generator

Associated Items: EU 062 Emergency Diesel Generator

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input using 3-hour Rolling Average	Minn. R. 7011.2300, subp. 2
Fuel type: No. 2 fuel oil only.	Minn. R. 7005.0100, subp. 35a
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight of diesel fuel.	Minn. R. 7007.0800, subp. 2
RECORDINGKEEPING REQUIREMENTS	hdr
Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency diesel generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subp. 4 & 5
Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of No. 2 fuel oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 036 Fly Ash Transfer**Associated Items:** EU 045 Fly Ash Conveyor

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE095) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 037 Fly Ash Silo**Associated Items:** EU 046 Fly Ash Silo

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE097) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 061 Bleaching Clay Storage

- Associated Items:** EU 048 Bleaching Clay Silo
 EU 055 Bleaching Clay Daybin
 EU 243 Rail Blower
 EU 245 Silo Discharge Conveyor
 EU 246 Dosing Tube

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to .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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE061) shall be operated at all times when the emission unit is in operation. See GP004 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 062 Filter Aid Storage

Associated Items: EU 049 Filter Aid Silo

EU 056 Filter Aid Daybin

EU 248 Silo Discharge Conveyor

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE062) shall be operated at all times when the emission unit is in operation. See GP004 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 063 Adsorbent

Associated Items: EU 050 Adsorbent Storage

EU 057 Adsorbent Daybin

EU 250 Silo Discharge Conveyor

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE063) shall be operated at all times when the emission unit is in operation. See GP004 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 064 Hot Well Vent**Associated Items:** EU 051 Bleaching Clay Slurry Tank

EU 053 Filter Aid Precoat Tank

EU 054 Adsorbent Slurry Tank

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than 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.	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

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 065 Reformer

Associated Items: EU 058 Reformer

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than 0.4 lbs/million Btu heat input using 3-hour Rolling Average	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity; except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
B. OTHER LIMITS AND REQUIREMENTS	hdr
Capacity: less than or equal to 10.9 million Btu's/hour	Minn. R. 7007.0800, subp. 2
Fuel Type: Natural gas	Minn. R. 7007.0800, subp. 2
Recordkeeping of Fuel Type: The Permittee shall keep records of the type of fuel burned by the 15th day of each month, when in operation.	Minn. R. 7007.0800, subps. 4 and 5
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total fuel use and the type of fuel. This shall be based on throughput logs, meters, and/or delivery records.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 066 Steam Generator A

Associated Items: EU 059 Steam Generator A

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than 0.4 lbs/million Btu heat input using 3-hour Rolling Average	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity; except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
B. OTHER LIMITS AND REQUIREMENTS	hdr
Capacity: less than or equal to 17.0 million Btu's/hour	Minn. R. 7007.0800, subp. 2
Fuel Type: Natural gas	Minn. R. 7007.0800, subp. 2
Recordkeeping of Fuel Type: The Permittee shall keep records of the type of fuel burned by the 15th day of each month, when in operation.	Minn. R. 7007.0800, subps. 4 and 5
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total fuel use and the type of fuel. This shall be based on throughput logs, meters, and/or delivery records.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 0130006 - 001

Subject Item: SV 067 Steam Generator B

Associated Items: EU 060 Steam Generator B

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than 0.4 lbs/million Btu heat input using 3-hour Rolling Average	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity; except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
B. OTHER LIMITS AND REQUIREMENTS	hdr
Capacity: less than or equal to 17.0 million Btu's/hour	Minn. R. 7007.0800, subp. 2
Fuel Type: Natural gas	Minn. R. 7007.0800, subp. 2
Recordkeeping of Fuel Type: The Permittee shall keep records of the type of fuel burned by the 15th day of each month, when in operation.	Minn. R. 7007.0800, subps. 4 and 5
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total fuel use and the type of fuel. This shall be based on throughput logs, meters, and/or delivery records.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 068 Boiler #6

Associated Items: EU 061 Boiler No. 6

What to do	Why to do it
A. POLLUTANT LIMITS and OPERATIONAL REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 0.0275 lbs/million Btu heat input using 3-hour Rolling Average	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0510, subp. 1
Particulate Matter < 10 micron: less than or equal to 0.0165 lbs/million Btu heat input using 3-hour Rolling Average	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60% opacity and a maximum of 40% for four additional minutes in any 60 minute period.	Minn. R. 7011.0515, subp. 2
The Permittee shall comply with 40 CFR pt. 63, subp. DDDDD.	40 CFR pt. 63, subp. DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
Fuel Use: Natural Gas Only	Title I Condition: limit taken to avoid classification as a major modification under 40 CFR Section 52.21
Capacity: less than or equal to 205 million Btu's/hour	Minn. R. 7007.0800, subp. 2
B. RECORDKEEPING	hdr
Recordkeeping of Fuel Type: The Permittee shall keep records of the type of fuel burned by the 15th day of each month, when in operation.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 069 Bean Heater

Associated Items: EU 273 Bean Heater

EU 274 Bean Heater Discharge Grate

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The cyclone (CE 101) shall be operated at all times when the emission unit is in operation. See GP 002 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 070 Grain Conveying/Bean Cleaning

- Associated Items:** EU 006 Bin 63 Discharge Auger
 EU 007 Bean Drag
 EU 023 Bin 65 Discharge Auger
 EU 096 Elevator Bean Leg
 EU 100 Dust Conveyor
 EU 101 Dust Conveyor
 EU 208 Clay Conveyor
 EU 278 Conveyor
 EU 279 Conveyor
 EU 280 Bean Cleaner
 EU 281 Bean Cleaner
 EU 283 Bean Cleaning Aspirator
 EU 284 Bean Cleaning Aspirator
 EU 285 Bean Cleaning Aspirator Fan
 EU 286 Bean Cleaning Aspirator Cyclone
 EU 288 Cleaned Bean Leg
 EU 289 Overs Conveyor
 EU 290 Fines Conveyor
 EU 291 Fines Conveyor
 EU 300 Rotary feeder for east bean cleaning aspirator
 EU 301 Rotary feeder for west bean cleaning aspirator
 EU 302 Bean cleaning rotex overs conveyor
 EU 303 Bean cleaning rotex overs conveyor
 EU 304 Bean cleaning rotex fines conveyor
 EU 311 Dust Conveyor
 EU 312 Mixed Meal Rotex
 EU 313 Conveyor to Mixed Meal Rotex
 EU 326 Clay auger to rail loading
 EU 327 Clay conveyor
 EU 328 Clay conveyor
 EU 349 Conveyor from pod grinder to trash dumpster
 EU 350 Conveyor from pod grinder to trash dumpster

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE102) shall be operated at all times when the emission unit is in operation. See GP 001 for fabric filter requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: SV 071 Escher Wyss Baghouse

Associated Items: EU 010 EW Dryer
EU 129 Dryer Recirculation Fan
EU 130 Dryer Recirculation Fan
EU 131 Recycle Cyclone
EU 132 Recycle Cyclone
EU 133 Recycle Cyclone
EU 134 Recycle Cyclone
EU 135 Dryer Exhaust Fan
EU 136 Conveyor to Cracking Rolls
EU 137 Overflow Conveyor
EU 138 Cracking Roll
EU 139 Cracking Roll
EU 140 Cracking Roll
EU 141 Cracking Roll
EU 142 Cracking Roll
EU 143 Cracking Roll
EU 144 Cracking Roll
EU 145 Cracking Roll
EU 146 Cracking Roll
EU 147 Primary Aspirator
EU 148 Primary Aspirator
EU 149 Primary Aspirator
EU 150 Primary Aspirator
EU 151 Primary Aspirator
EU 152 Primary Aspirator
EU 153 Primary Aspirator
EU 154 Primary Aspirator
EU 155 Cracked Bean Conveyor
EU 156 Cracked Bean Conveyor
EU 157 EW Conditioner
EU 158 EW Conditioner Fan
EU 159 Primary Aspirator Fan
EU 253 Conveyor
EU 254 Conveyor
EU 255 Cracking Roll
EU 256 Cracking Roll
EU 257 Cracking Roll
EU 258 Cracking Roll
EU 260 Conveyor
EU 261 Primary Aspirator Fan
EU 262 Conveyor
EU 263 Conveyor
EU 264 Conveyor
EU 275 Leg
EU 276 Conveyor

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato
 Permit Number: 01300006 - 001

- Associated Items:** EU 277 Belt Scale
 EU 296 Primary Aspirator
 EU 297 Primary Aspirator
 EU 298 Primary Aspirator
 EU 299 Primary Aspirator
 EU 305 EW dryer rock screw #1
 EU 306 EW dryer rock screw #2
 EU 307 Belt scale overflow auger

What to do	Why to do it
A. POLLUTANT 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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The baghouse (CE100) shall be operated at all times when the emission unit is in operation except for up to 200 hours of down time for maintenance for which emissions will be redirected to the cyclone (CE103). See CE100 for baghouse requirements and CE103 for cyclone requirements.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.1005, subp. 1
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after achieving maximum capacity, but no later than 550 days after Permit Issuance, to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: EU 037 Boiler No. 5

Associated Items: CE 094 Fabric Filter - High Temperature, i.e., T>250 Degrees F

MR 001 Opacity COM

MR 002 SO2 CEM

MR 003 NOx CEM

MR 004 O2 CEM

SV 032 Boiler #5 (Boiler No.5, Startup, Preheater)

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.051 lbs/million Btu heat input using 3-hour Rolling Average . This limit applies at all times, except during periods of startup, shutdown or malfunction.	40 CFR Section 60.43b(a)(1); 40 CFR Section 60.43b(g); Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity (6-minute average) except for one six-minute period per hour of not more than 27% opacity. This limit applies at all times, except during periods of startup, shutdown or malfunction.	40 CFR Section 60.43b(f); 40 CFR Section 60.43b(g); Minn. R. 7007.0800, subp. 2
Sulfur Dioxide: less than or equal to 0.75 lbs/million Btu heat input using 30-day Rolling Average (western coal).	Title I Condition: BACT Limit 40 CFR Section 52.21, 40 CFR Section 60.42b and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Sulfur Dioxide: less than or equal to 0.92 lbs/million Btu heat input using 30-day Rolling Average (otherwise).	Title I Condition: BACT Limit 40 CFR Section 52.21, 40 CFR Section 60.42b and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Nitrogen Oxides: less than or equal to 0.6 lbs/million Btu heat input using 30-day Rolling Average . This limit applies at all times including periods of startup, shutdown, or malfunction.	40 CFR Section 60.44b(a)(3)(ii); 40 CFR Section 60.44b(h); Minn. R. 7007.0800, subp. 2
Carbon Monoxide: less than or equal to 0.25 lbs/million Btu heat input using 30-day Rolling Average	Title I Condition: BACT Limit 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
B. CEM REQUIREMENTS FOR SO2	hdr
SO2 Emissions Monitoring: The Permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations and either oxygen (O2) or carbon dioxide (CO2) concentrations and shall record the output of the systems. The sulfur dioxide and either oxygen or carbon dioxide concentrations shall both be monitored at the inlet and outlet of the sulfur dioxide control device.	40 CFR Section 60.47b; Minn. R. 7017.1006; Minn. R. 7007.0800 subp. 4 and 5
SO2 Emissions Measuring: The Permittee shall use a sulfur dioxide CEMS to measure sulfur dioxide emissions from the Stack Vent.	40 CFR Section 60.47b; Minn. R. 7017.1006; Minn. R. 7007.0800 subp. 4 and 5
(continued) than 30 minutes of steam generating unit operation and include at least 2 data points with each representing a 15-minute period. Hourly sulfur dioxide emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.	(continued) 40 CFR Section 60.47b; Minn. R. 7017.1006; Minn. R. 7007.0800 subp. 4 and 5
SO2 Emissions Calculation and Recordkeeping: On an hourly basis, the Permittee shall use the SO2 CEMS to calculate and record SO2 emissions from the Stack Vent in units of pounds of SO2 per million Btu (lbs/MMBtu) heat input.	40 CFR Section 60.47b; Minn. R. 7017.1006; Minn. R. 7007.0800 subp. 4 and 5
C. COMS REQUIREMENT	hdr
Continuous Opacity Monitoring System (COMS): The Permittee shall calibrate, operate and maintain a continuous monitoring system for the measurement of opacity.	40 CFR Section 60.47b; Minn. R. 7017.1006; Minn. R. 7007.0800 subp. 4 and 5
Emissions Monitoring: The owner or operator shall use a COMS to measure opacity emissions from the Stack Vent.	40 CFR Section 60.47b; Minn. R. 7017.1006; Minn. R. 7007.0800 subp. 4 and 5
QA Plan Required: Develop and implement a written quality assurance plan which covers each COMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.	Minn. R. 7017.1210
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. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	Minn. R. 7017.1090, subp. 1; 40 CFR Section 60.13(e)

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato
 Permit Number: 01300006 - 001

COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR 60, Appendix B.	Minn. R. 7017.1210, subp. 2; 40 CFR Section 60.13(d)
Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter following COMS Certification Test (Submit Deviations Reporting Form DRF-1 as amended).. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	Minn. R. 7017.1110, subp. 1; 40 CFR Section 60.7(c)
COMS Calibration Error Audit: due before end of each half-year following COMS Certification Test Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart. Filter values used shall correspond to approximately 11%, 20%, and 37% opacity.	Minn. R. 7017.1210, subp. 3
COMS Calibration Error Audit Results Summary: due 30 days after end of each calendar half-year following COMS Calibration Error Audit	Minn. R. 7017.1220
All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data for each successive 6-minute period.	Minn. R. 7017.1200, subp. 1, 2 & 3; 40 CFR Section 60.13(e)(1); 40 CFR Section 60.13(h)
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130
D. CEM REQUIREMENTS FOR NOX	hdr
Continuous Emission Monitoring System (CEMS): The Permittee shall calibrate, operate and maintain a continuous monitoring system for the measurement of nitrogen oxide (NOx).	40 CFR 60.48b; Minn. R. 7007.0800, subp. 4 and 5
NOx Emissions Measuring: The Permittee shall use NOx CEMS to measure nitrogen oxide emissions from the Stack Vent.	40 CFR 60.48b; Minn. R. 7007.0800, subp. 4 and 5
NOx Emissions Calculation and Recordkeeping: On an hourly basis, the Permittee shall use the NOx CEMS to calculate and record NOx emissions from the Stack Vent in units of pounds of NOx per million Btu (lbs/MMBtu) heat input.	40 CFR 60.48b; Minn. R. 7007.0800, subp. 4 and 5
NOx Calculation and Recordkeeping: The Permittee shall maintain records of the calculated hourly average of NOx in ppm.	40 CFR 60.48b; Minn. R. 7007.0800, subp. 4 and 5
NOx Emissions Recordkeeping: The Permittee shall record the daily and 30-day rolling average of NOx emissions.	Minn. R. 7007.0800, subp. 5
E. GENERAL REQUIREMENTS FOR ALL CEMS	hdr
CEMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR 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 Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each year following CEM Certification Test. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed.	Minn. R. 7017.1180, subp. 1
Relative Accuracy Test Audit (RATA) Results Summary: due 45 days after CEMS Relative Accuracy Test Audit (RATA) was conducted.	Minn. R. 7017.1180, subp. 3
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA)	Minn. R. 7017.1180, subp. 2
Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 12/31/2004 (Submit Deviations Reporting Form DRF-1 as amended). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	Minn. R. 7017.1110, subps. 1 and 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

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.	Minn. R. 7017.1090, subp. 1
Acceptable monitor downtime is a violation of Subpart 1 except for reasonable periods due to the following causes: A. damage to the monitoring system to Acts of God such as lightning strikes, tornadoes, or floods which render the monitor inoperative; B. sudden and not reasonably preventable breakdowns; C. scheduled monitor maintenance based upon equipment manufacturer's recommended maintenance schedule which cannot reasonably be conducted when the emission unit is not operating; or D. unavoidable monitor downtime in order to conduct daily drift checks, calibration error audits, relative accuracy tests audits, linearity checks, and cylinder gas audits required by a compliance document, applicable requirement, or by request of the Commissioner.	Minn. R. 7017.1090, subp. 2 (CONTINUED)
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 60, App. F, section 3. The CEMS manufactures recommended spare parts shall be kept onsite unless the Commissioner approves exclusions.	Minn. R. 7017.1170, 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. 7007.1130
F. ADDITIONAL REQUIREMENTS	hdr
Recordkeeping: Record and maintain records of the amounts of each fuel combusted on a monthly basis. These records may consist of purchase records or receipts.	Minn. R. 7007.0800 subp. 4 and 5
On a 30 day rolling average basis, calculate and record Carbon Monoxide emissions using the emission factor developed by the most recent MPCA approved stack test and fuel combustion records (million Btu heat input). Results must be recorded as lbs of Carbon Monoxide/million Btu heat input.	Minn. R. 7007.0800 subp. 4 and 5
Performance Test: due 180 days after achieving maximum capacity, but no later than 365 days after Permit Issuance, to verify CO emissions and to develop a CO emission factor to be used when verify compliance with the CO emission limitation.	Minn. R. 7017.2020, subp. 1 and 40 CFR 60.8(a)
Testing Frequency Plan: due 60 days after Performance Tests. 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.	Minn. R. 7017.2020, subp. 1
Reporting and recordkeeping requirements including the submission of quarterly CEM reports containing information outlined in 40 CFR Section 60.49b(g). Permittee must comply with the requirements of 40 CFR Section 60.49b.	40 CFR Section 60.49b
Capacity: less than or equal to 156 million Btu's/hour	Minn. R. 7007.0800, subp. 2
The Permittee shall comply with 40 CFR pt. 63, subp. DDDDD.	40 CFR pt. 63, subp. DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
G. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The fabric filter (CE 094) shall be operated at all times when the emission unit is in operation. See GP001 for fabric filter requirements.	40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: CE 099 Cold H2O Cond - MO Absorber

Associated Items: EU 019 Extractor

EU 020 DTDC

What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds: greater than or equal to 95 percent control efficiency	Title I Condition: CAAA of 1990, BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Hexane: greater than or equal to 95 percent control efficiency	Title I Condition: CAAA of 1990, BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control device at all times that any emission unit controlled by the control device is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: CAAA of 1990, BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
Cold mineral oil entering the control equipment must be maintained at a Temperature: less than or equal to 120 degrees F using 3-hour Rolling Average	Title I Condition: CAAA of 1990, BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Mineral Oil flow rate must be maintained at a Liquid Flow Rate: greater than or equal to 30 gallons/minute using 1-minute Average	Title I Condition: CAAA of 1990, BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
Cold Water Condenser outlet gas Temperature: less than or equal to 105 degrees F using 3-hour Average	Title I Condition: CAAA of 1990, BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the equipment in accordance with the Operation and Maintenance (O & M) Plan to achieve optimal control efficiencies. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Title I Condition: CAAA of 1990, BACT Limit 40 CFR Section 52.21(j); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
B. MONITORING AND RECORDKEEPING	hdr
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording the temperature and flow rate, as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored equipment is in operation.	Minn. R. 7007.0800, subp. 4 & 5
The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the cold oil mineral oil temperature entering the mineral oil scrubber and the cold water condenser outlet gas. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average temperature.	Minn. R. 7007.0800, subp. 4 & 5
The Permittee shall maintain either a continuous hard copy readout of the mineral oil temperature entering the mineral oil absorber and the calculated three-hour rolling average mineral oil temperature entering the mineral oil absorber, or maintain a hard copy of manual readings taken at least every 15 minutes.	Minn. R. 7007.0800, subp. 4 & 5
Daily Monitoring: The Permittee shall physically check the temperature recording devices at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.	Minn. R. 7007.0800, subp. 4 & 5
Weekly Monitoring: The Permittee shall record the operating parameters once each calendar week. The record shall include the time and date of the reading and whether or not it was within the range specified by this permit.	Minn. R. 7007.0800, subp. 4 & 5
Corrective Actions: If the temperature is above the maximum, or the operating parameters are outside the specified ranges, or if the control equipment or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature, flowrates, and/or operating parameters to the specified limits/ranges 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 equipment. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, & 14
Inspections: At least once per calendar year, or more frequently if required by the manufacturer specifications, the Permittee shall inspect the control equipment system components. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subp. 4, 5 & 14
Annual Calibration: The Permittee shall calibrate the temperature monitor and flow rate gauges 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, & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: CE 100 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

Associated Items: EU 010 EW Dryer
EU 129 Dryer Recirculation Fan
EU 130 Dryer Recirculation Fan
EU 131 Recycle Cyclone
EU 132 Recycle Cyclone
EU 133 Recycle Cyclone
EU 134 Recycle Cyclone
EU 135 Dryer Exhaust Fan
EU 136 Conveyor to Cracking Rolls
EU 137 Overflow Conveyor
EU 138 Cracking Roll
EU 139 Cracking Roll
EU 140 Cracking Roll
EU 141 Cracking Roll
EU 142 Cracking Roll
EU 143 Cracking Roll
EU 144 Cracking Roll
EU 145 Cracking Roll
EU 146 Cracking Roll
EU 147 Primary Aspirator
EU 148 Primary Aspirator
EU 149 Primary Aspirator
EU 150 Primary Aspirator
EU 151 Primary Aspirator
EU 152 Primary Aspirator
EU 153 Primary Aspirator
EU 154 Primary Aspirator
EU 155 Cracked Bean Conveyor
EU 156 Cracked Bean Conveyor
EU 157 EW Conditioner
EU 158 EW Conditioner Fan
EU 159 Primary Aspirator Fan
EU 253 Conveyor
EU 254 Conveyor
EU 255 Cracking Roll
EU 256 Cracking Roll
EU 257 Cracking Roll
EU 258 Cracking Roll
EU 260 Conveyor
EU 261 Primary Aspirator Fan
EU 262 Conveyor
EU 263 Conveyor
EU 264 Conveyor
EU 275 Leg
EU 276 Conveyor

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

- Associated Items:**
- EU 277 Belt Scale
 - EU 296 Primary Aspirator
 - EU 297 Primary Aspirator
 - EU 298 Primary Aspirator
 - EU 299 Primary Aspirator
 - EU 305 EW dryer rock screw #1
 - EU 306 EW dryer rock screw #2
 - EU 307 Belt scale overflow auger

What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation with the exception that the fabric filter may be bypassed, with emissions being redirected to CE 103 (see CE 103), 200 hours/rolling 365 day period for maintenance of CE 100. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
Pressure Drop: greater than or equal to 1.5 inches of water column and less than or equal to 8 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 Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: Limit taken to avoid classification as a major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
The Permittee shall install instrumentation to measure the pressure drop across the baghouse.	
Visible Emissions: The Permittee shall check the fabric filter stack 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.	Minn. R. 7007.0800, subp. 4 and 5
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
B. MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading once every 24 hours and whether or not the recorded pressure drop was within the range specified in this permit.	Minn. R. 7007.0800, subp. 4 and 5
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	Minn. R. 7007.0800, subp. 4 and 5
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 & 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

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Periodic Inspections: At least once per calendar year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 & 14
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TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

Subject Item: CE 103 Centrifugal Collector - High Efficiency

Associated Items: EU 010 EW Dryer
EU 129 Dryer Recirculation Fan
EU 130 Dryer Recirculation Fan
EU 131 Recycle Cyclone
EU 132 Recycle Cyclone
EU 133 Recycle Cyclone
EU 134 Recycle Cyclone
EU 135 Dryer Exhaust Fan
EU 136 Conveyor to Cracking Rolls
EU 137 Overflow Conveyor
EU 138 Cracking Roll
EU 139 Cracking Roll
EU 140 Cracking Roll
EU 141 Cracking Roll
EU 142 Cracking Roll
EU 143 Cracking Roll
EU 144 Cracking Roll
EU 145 Cracking Roll
EU 146 Cracking Roll
EU 147 Primary Aspirator
EU 148 Primary Aspirator
EU 149 Primary Aspirator
EU 150 Primary Aspirator
EU 151 Primary Aspirator
EU 152 Primary Aspirator
EU 153 Primary Aspirator
EU 154 Primary Aspirator
EU 155 Cracked Bean Conveyor
EU 156 Cracked Bean Conveyor
EU 157 EW Conditioner
EU 158 EW Conditioner Fan
EU 159 Primary Aspirator Fan
EU 253 Conveyor
EU 254 Conveyor
EU 255 Cracking Roll
EU 256 Cracking Roll
EU 257 Cracking Roll
EU 258 Cracking Roll
EU 260 Conveyor
EU 261 Primary Aspirator Fan
EU 262 Conveyor
EU 263 Conveyor
EU 264 Conveyor
EU 275 Leg
EU 276 Conveyor

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

- Associated Items:** EU 277 Belt Scale
 EU 296 Primary Aspirator
 EU 297 Primary Aspirator
 EU 298 Primary Aspirator
 EU 299 Primary Aspirator
 EU 305 EW dryer rock screw #1
 EU 306 EW dryer rock screw #2
 EU 307 Belt scale overflow auger

What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 80 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
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 80 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
The Permittee shall operate and maintain the cyclone at all times that any emission unit controlled by the cyclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7011.1005, subp. 1. B
The Permittee shall operate and maintain the cyclone in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Visible Emissions: When emissions are being redirected to CE 103 from CE 100 (allowed for 200 hours/rolling 365 day period for maintenance of CE 100), the Permittee shall check the cyclone stack for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subp. 4 and 5
B. MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Visible Emissions: When emissions are being redirected to CE 103 from CE 100 (allowed for 200 hours/rolling 365 day period for maintenance of CE 100), the Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 4 and 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the cyclone or any of its components are found during the inspections to need repair. Corrective actions shall return the 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 cyclone. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 & 14
Periodic Inspections: At least once per calendar year, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 & 14

TABLE B: SUBMITTALS

06/28/05

Facility Name: ADM - Mankato
Permit Number: 01300006 - 001

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.

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 any application for a permit or permit amendment to:

Permit Technical Advisor
Permit Section
Air Quality 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:

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Information	due 1,096 days after Permit Issuance. Submit modeling data as specified in MPCA guidance for Modeling Information Requests (for SO2 and NOX). This modeling information is for data collection purposes, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance for PM10. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance for PM10. To be submitted after the MPCA has reviewed and approved the modeling protocol. The submittal should adhere to MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Fugitive Control Plan	due 60 days after Permit Issuance to the Commissioner for review and approval. The Permittee shall follow the actions and recordkeeping specified. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner.	Total Facility
Submittal	due 180 days after Effective Date of Permit, certified and complete facility description forms as provided from the MPCA Delta Database.	Total Facility

TABLE B: RECURRENT SUBMITTALS

06/28/05

Facility Name: ADM - Mankato

Permit Number: 01300006 - 001

What to send	When to send	Portion of Facility Affected
Submittal	due before end of each calendar quarter following Permit Issuance, with the first submittal due by 09/30/2005, the Coal analysis report and CEM reporting data.	EU037
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. 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 31 days after end of each calendar year following Permit Issuance (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. The report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name:ADM - Mankato

Permit Number: 01300006-001

APPENDIX B: Insignificant Activities and Applicable Requirements

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(B)	<p>2. Fuel burning equipment with a capacity less than 500,000 Btu/hour but only if the total combined capacity of all fuel burning equipment at the stationary source with a capacity less than 500,000 Btu per hour is less than or equal to 2,000,000 Btu/hour.</p> <p><i>ADM has one furnace rated at 180,000 BTU/hr and two at 100,000 Btu/hr.</i></p>	Minn. R. 7011.0510
3(G)	<p>Emissions from a laboratory, as defined in the subpart.</p> <p><i>Two small testing laboratories are located on site.</i></p>	Minn. R. 7011.0510 Minn. R. 7011.0610 Minn. R. 7011.0715
3(H)	Miscellaneous:	
	<p>1. total usage of less than 200 gallons of VOC (including hazardous air pollutant-containing VOC) combined in any consecutive 12 months period at a stationary source;</p> <p><i>Two degreasing units are located on site using less than 145 gallons per 12 months.</i></p>	Minn. R. 7011.0715
	<p>4. brazing, soldering or welding equipment;</p> <p><i>Welding equipment and acetylene torches are located on site.</i></p>	Minn. R. 7011.0510 Minn. R. 7011.0610 Minn. R. 7011.0715
3(I)	<p>Individual emissions units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than:</p> <p>1. 4,000 lbs/year of carbon monoxide; and</p> <p>2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone.</p> <p><i>One fuel oil storage tank is located onsite with potential VOC emissions of less than 2,000 lbs per year.</i></p>	Minn. R. 7011.1505
3(J)	<i>Fugitive Emissions from roads and parking lots.</i>	Minn. R. 7011.0150

APPENDIX C: LEAK DETECTION AND CORRECTION

Extraction plant operators visually inspect equipment that contains hexane on a daily basis. Operators check for both visible and audible signs of leaks at pump seals, valves, process piping, and process equipment (such as condensers and heat exchangers). If a leak is found, a work order is written to repair the leak.

Corrective action to repair leaks is taken as soon as possible and usually within five days of writing the work order. Some leaks require a welding shutdown to completely repair the leak. Welding shutdowns are typically taken every two to three years. Due to the highly explosive nature of hexane, a welding shutdown requires that the entire extraction plant be shut down and that all hexane be purged from all extraction plant vessels and piping before welding can be done in that area. For larger leaks that require welding to fully repair, a two-part epoxy/hardener compound or other appropriate material is used to patch the leak until it can be safely repaired via welding during a welding purge.

If a pump seal is found to be leaking, the seal is replaced as soon as possible. All extractor, distillation, and hexane pumps are checked daily for visible signs of leaking.

If a valve is found to be leaking, it is typically repaired by either tightening the flange bolts or tightening the packing gland bolts. Valves are replaced as necessary during scheduled plant shutdowns. All valves associated with the extractor and the distillation system are checked daily for visible signs of leaking.

Process piping is checked daily for visible and audible signs of leaking. If a leak is detected, repair is made almost immediately by one of the methods described above. Two-part epoxy/hardener compound or other appropriate material is often used to completely stop the leak until a welding shutdown is scheduled.

Condensers and heat exchangers are checked daily for visible and audible signs of leaking. If a leak is detected, repair is made almost immediately by the same methods used to repair leaks in process piping.

Distillation process equipment is checked on a daily basis, and leaks are repaired immediately by the same methods used to repair leaks in process piping. Since the distillation system operates under moderate vacuum, most leaks are easily detectable from audible signs (i.e. air being sucked into the vessel).

The extractor and the DTDC are both checked daily for visible and audible signs of leaks. Key areas to inspect for leaks are sight-glass windows, entry doors, and shaft seals on the extractor drive and the DT rotary valve. However, leaks detected in these areas cannot be repaired until we reach a scheduled shutdown. In these cases, either the gaskets or the seals will be replaced as necessary.

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 01300006-001

This Technical Support Document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal regulations and Minn. R. (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 preliminary determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 2075/2079)
Archer Daniels Midland (ADM) 4666 Faries Parkway Decatur IL. 62526	ADM - Mankato Oilseed Processing Facility 2019 3 rd Ave. Mankato, MN. 56002 Blue Earth County
Contact: Brad Bouma (507) 625-7949	

1.2. Description of the Permit Action

This Part 70 Operating Permit is a consolidation of existing applicable conditions from previous permitting actions incorporates the Consent Decree signed by U.S. District Court Judge Harold Baker of the Central District of Illinois on August 21, 2003 and also authorizes a major modification to the facility to increase production. This permit will incorporate more detailed specifications of the emission units, pollution control equipment, new rules and existing regulations that apply to the facility.

The permit applications for issuance of this Part 70 Total Facility Permit was submitted, and received by the Minnesota Pollution Control Agency (MPCA) in accordance with the 1995 deadline. The modification that is being incorporated into this action was received by the MPCA in 2004. ADM has continued to update these applications throughout the completion of this permit.

1.3 Stationary Source Description

ADM owns and operates a soybean crushing and vegetable oil refining operation located in Mankato, Minnesota. The facility consists of emission units related to soybean receiving, storage processing, solvent extraction/recovery, meal processing, oil refining, and steam production. The facility receives raw soybeans and processes them using hexane to extract soybean oil. The crude soybean oil is separated from the hexane and is further refined, deodorized, hydrogenated, stored, loaded and shipped. The remaining material is processed into meal by desolventizing, drying and cooling. The meal is stored prior to shipping to customers as animal feed.

The main sources of emissions from the facility are Particulate Matter (PM), Particulate Matter less than 10 microns in size (PM₁₀), Volatile Organic Compounds (VOC), Sulfur Dioxide (SO₂), Carbon Monoxide (CO), Nitrogen Oxides (NO_x) and Hazardous Air Pollutants (HAPs). PM/PM₁₀ emissions are emitted from the handling and processing of the beans, the meal system and the refinery. PM/PM₁₀, SO₂, CO, NO_x and VOC emissions are emitted from the boilers. Hexane emissions are emitted from the hexane extraction and recovery systems. The facility is a major source under federal New Source Review (NSR), federal Operating Program (40 CFR pt. 70) and federal National Emission Standards for Hazardous Air Pollutants (NESHAPs, 40 CFR pt. 63)

1.3.1 Description of the Activities Allowed by this Permit Action

The major modification allowed by this permit action allows ADM to make modifications to existing equipment and add equipment to expand the facility's crush capacity. Soybean preparation changes will include additional bean cleaning equipment, a new bean heater, installation of a baghouse on the existing drying/cracking/dehulling/condition system, additional cracking, dehulling, flaking, and hull grinding and conveying equipment. Meal conveying will be upgraded to handle the increased meal capacity. The grain elevator will have a larger capacity conveyor and undergo aspiration modifications.

1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit and to be Included in the Part 70 Permit

Permit Number and Issuance Date	Action Authorized
01300006-018 (175A-89-OT-2) January 6, 1998	Construction and Operation: To operate and construct a vegetable oil refinery.
01300006-017 January 6, 1998	Construction and Operation: To install and operate a 205 MMBtu/hr natural gas fired boiler.
175A-89-OT-2 September 8, 1992	Amendment 4: To allow No. 2 fuel oil as a backup fuel for boilers No. 3 and No. 4, to allow an existing fuel storage tank to be used as soybean oil storage, and to install a new fuel tank for No. 2 fuel oil storage.
175A-89-OT-2 April 22, 1992	Amendment 3: To add a stack and baghouse.
175A-89-OT-2 October 12, 1990	Amendment 2: To install a backup boiler (No. 6) and incorporate NSPS language for the grain elevators.
175A-89-OT-2 July 27, 1990	Amendment 1: To install five new baghouse filter systems.
175A-89-OT-2 December 29, 1989	Reissuance: Operation of a Soybean Processing Plant and Air Pollution Control Equipment (APCE).
175A-85-OT-1 April 9, 1986	Amendment 1: To require an air toxics report of hexane emissions.
175A-85-OT-1 December 13, 1985	Operation of a Soybean Processing Plant and APCE: Operation of the soybean processing plant and installation of a coal fired cogeneration plant.
175A-84-I-4 March 2, 1984	Installation of APCE: To extend the railcar shed to cover the two existing truck dumps and a baghouse filter system to emissions from a truck pit.
175A-80-0-1 January 22, 1981	Operating Permit: To operate five boilers.
175A-80-I-4 October 23, 1980	Installation of Emission Facilities and APCE: To install soybean cleaners, aspirators and meal dryer-coolers.
175A-80-I-3 July 28, 1980	Installation Permit for an Emission Facility: The installation of a Brico Industries Grain Dryer.

1.5. Facility Emissions:

Table 1. Title I Emissions Increase Summary:

Pollutant	Emissions Increases from the modification (tpy)	PSD/112(g) Significant Thresholds for major sources	NSR/112(g) Review Required? (Yes or No)
PM	21.8	25	No
PM ₁₀	13.0	15	No
NO _x	14.8	40	No
SO ₂	0.1	40	No
CO	12.5	100	No
Ozone (VOC)	341.5	40	Yes
Lead	0.0001	0.6	No
Single HAP (Hexane)	218.0	10	Yes
Total HAPs	218.0	25	Yes

Table 2. Total Facility Potential to Emit Summary:

	PM Tpy	PM ₁₀ Tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Lead tpy	Single HAP tpy	Total HAPs tpy
Total Facility Limited Potential Emissions	464.04	150.06	2.13	57.52	66.75	693.90	0.00	440.72	440.72
Total Facility Actual Emissions (2004)	8.63	8.63	4.83	118.51	56.15	43.77	0.00	HAPs not reported in emission inventory	

Table 3. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
Prevention of Significant Deterioration (PSD)	SO ₂ , CO, VOC	PM, NO _x	Lead
Part 70 Permit Program	PM, PM ₁₀ , SO ₂ , CO, VOC(Ozone), HAP	NO _x	Lead

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under New Source Review regulations. The modification results in the applicability of Prevention of Significant Deterioration (PSD) regulations.

Part 70 Permit Program

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

Consent Decree

The facility is subject to a consent decree signed by U.S. District Court Judge Harold Baker of the Central District of Illinois on August 21, 2003.

New Source Performance Standards (NSPS)

Portions of the facility are subject to Standards of Performance for Grain Elevators, NSPS, subp. DD as well as the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units NSPS. Subp. Db

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is subject to Solvent Extraction for Vegetable Oil Production, NESHAP, subp. GGGG.

Minnesota State Rules

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

- Minn. R. 7011.0020 Circumvention
- Minn. R. 7011.0150 Standards of Performance for control of fugitive Particulate Matter
- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0515 Standards of performance for new indirect heating equipment.
- 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.
- Minn. R. 7011.1010 Nuisance
- Minn R. 7011.1015 Control Requirements Schedule
- Minn R. 7011.1105 Standards of performance for certain coal handling facilities
- Minn R. 7011.1110 Standards of performance for existing outstate coal handling facilities.
- Minn R. 7011.1120 Exemption
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 3. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
Total Facility (TF)	<p>a) 40 CFR pt. 63, subp. GGGG</p> <p>b) CAAA of 1990 40 CFR § 52.21</p>	<p>National Emission Standards for Hazardous Air Pollutants for Solvents Extraction for Vegetable Oil Production.</p> <p>This standard regulates HAP emissions from facilities that are major sources. The rule restricts plant-wide hexane emissions from each affected facility rather than requiring individual controls at each emission point.</p> <p>b) VOC solvent loss ration limit of 0.15 gallons/ton (246,375 gallons hexane loss per year) complies with BACT and Consent Decree requirements. In addition, the facility will operate under a Leak Detection and Correction Program to fulfill requirements of the BACT analysis.</p>
GP 001 through GP 004	<p>a) 40 CFR § 52.21 Minn. R. 7007.0800</p> <p>b) Minn. R. 7007.3000 Minn. R. 7011.1005</p>	<p>a) Control efficiency limits and operational requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21.</p> <p>b) Monitoring and recordkeeping requirements ensure proper operation.</p>
GP 005 through GP 026	<p>40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>Process Throughput Limits and recordkeeping requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21.</p>
GP 027	<p>a) 40 CFR pt. 63, subp. DDDD</p> <p>b) Minn. R. 7011.0515</p> <p>c) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>a) National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.</p> <p>b) Standards of performance limits for particulate matter, sulfur dioxide, and opacity for new indirect heating equipment</p> <p>c) Recordkeeping requirements to ensure that emissions remain less than significant as defined in 40 CFR § 52.21 as the future potential emissions are based on natural gas use only.</p>

GP 028	<p>a) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p> <p>b) Minn. R. 7011.0715</p> <p>c) Minn. R. 7011.0610</p> <p>d) Minn. R. 7011.1005</p>	<p>a) Process Throughput Limits and recordkeeping requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21.</p> <p>b) Standards of performance limits for particulate matter and opacity for industrial equipment</p> <p>c) Standards of performance limits for sulfur dioxide for fossil-fuel-burning direct heating equipment.</p> <p>d) Standards of performance requirement for dry bulk agricultural commodity facilities.</p>
GP 029	<p>a) Minn. R. 7011.1105</p> <p>b) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>a) Standards of performance for PM and opacity for certain coal handling facilities.</p> <p>b) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21</p>
SV 001	<p>a) Minn. R. 7011.1005</p> <p>b) 40 CFR § 60.302</p> <p>c) Minn. R. 7011.0715</p> <p>d) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p> <p>e) Minn. R. 7017.2020 40 CFR § 60.8(a)</p>	<p>a) Standards of performance requirement for dry bulk agricultural commodity facilities.</p> <p>b) Standards of performance for grain elevators</p> <p>c) Standards of performance limits for particulate matter for industrial equipment.</p> <p>d) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21</p> <p>e) Testing requirements to ensure and verify compliance.</p>
SV 002	<p>a) Minn. R. 7011.1005</p> <p>b) Minn. R. 7011.0715</p> <p>d) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>a) Standards of performance requirement for dry bulk agricultural commodity facilities.</p> <p>b) Standards of performance limits for particulate matter for industrial equipment</p> <p>d) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21</p>

SV 003	a) Minn. R. 7011.1005 b) 40 CFR § 60.302 Minn. R. 7007.0800 c) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000	a) Standards of performance requirement for dry bulk agricultural commodity facilities. b) Standards of performance for grain elevators c) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21
SV 004, 006, 007, 009, 010, 012, 014, 015, 017, 019, 021, 022, 023, 031, 036, 037, 061, 062, 063, 070	a) Minn. R. 7011.0715 b) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000	a) Standards of performance limits for particulate matter for industrial equipment b) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21
SV 005, 016, 064	a) Minn. R. 7011.0715	a) Standards of performance requirement for dry bulk agricultural commodity facilities.
SV 011, 013, 018, 020, 069, 071	a) Minn. R. 7011.0715 b) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000 c) Minn. R. 7017.2020 40 CFR §60.8(a)	a) Standards of performance limits for particulate matter for industrial equipment b) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21 c) Testing requirements to ensure and verify compliance.
SV 024	a) Minn. R. 7011.1005 b) Minn. R. 7011.0715 c) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000 d) Minn. R. 7017.2020 40 CFR § 60.8(a)	a) Standards of performance requirement for dry bulk agricultural commodity facilities. b) Standards of performance limits for particulate matter for industrial equipment c) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21 d) Testing requirements to ensure and verify compliance.

SV 025	<p>a) Minn. R. 7011.1005</p> <p>b) Minn. R. 7011.0715</p> <p>c) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>a) Standards of performance requirement for dry bulk agricultural commodity facilities.</p> <p>b) Standards of performance limits for particulate matter for industrial equipment</p> <p>c) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21</p>
SV 026	<p>a) Minn. R. 7011.1105</p> <p>b) Minn. R. 7011.1110</p> <p>c) Minn. R. 7011.1120</p> <p>d) Minn. R. 7007.0800</p> <p>e) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>a) Standards of performance for coal handling facilities.</p> <p>b) Standards of performance for existing outstate coal handling facilities.</p> <p>c) Exemption for applying suppressants during freezing temperature.</p> <p>d) Cleaning inspection.</p> <p>e) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21</p>
SV 027, 028, 029, 030	<p>a) Minn. R. 7011.1105</p> <p>b) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>a) Standards of performance for coal handling facilities.</p> <p>b) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21</p>
SV 035	<p>a) Minn. R. 7011.2300</p> <p>b) Minn. R. 7005.0100</p> <p>d) Minn. R. 7007.0800</p>	<p>a) Standards of performance for coal handling facilities.</p> <p>b) Standards of performance for existing outstate coal handling facilities.</p> <p>d) Restriction on sulfur content to minimize sulfur dioxide emissions. Recordkeeping requirements to ensure compliance.</p>
SV 065 through SV 067	<p>a) Minn. R. 7011.0510</p> <p>b) Minn. R. 7007.0800</p>	<p>a) Standards of performance for existing indirect heating equipment.</p> <p>b) Restriction on fuel use and recordkeeping requirements to ensure compliance</p>
SV 068	<p>a) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000 Minn. R. 7011.0510</p> <p>b) 40 CFR pt 63, sub. DDDD</p>	<p>a) Standards of performance for existing indirect heating equipment. Limits and recordkeeping requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21.</p> <p>b) Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999.</p>

<p>EU 037</p>	<p>a) 40 CFR § 60.43 40 CFR § 60.42 40 CFR § 60.44</p> <p>b) 40 CFR § 52.21</p> <p>c) 40 CFR §60.7 40 CFR § 60.13 40 CFR § 60.47 40 CFR § 60.48 40 CFR § 60.49 40 CFR pt. 60 Appendix F Minn. R. 7017.1090 Minn. R. 7017.1110 Minn. R. 7017.1130 Minn. R. 7017.1170 Minn. R. 7017.1180 Minn. R. 7017.1006 Minn. R. 7017.1200 Minn. R. 7017.1210 Minn. R. 7017.1220 Minn. R. 7017.2020</p> <p>d) 40 CFR pt 63, sub. DDDD</p> <p>e) 40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>a) Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.</p> <p>b) Limits and recordkeeping requirements taken to keep the emissions increase to less than significant as defined in 40 CFR § 52.21</p> <p>c) Monitoring, recordkeeping and operation requirements to ensure proper operation.</p> <p>d) Subpart DDDD—Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999</p> <p>e) Pollution control requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21</p>
<p>CE 099</p>	<p>40 CFR § 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000</p>	<p>Control efficiency limits and operational requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21.</p>
<p>CE 100 and CE 103</p>	<p>40 CFR Section 52.21 Minn. R. 7007.0800 Minn. R. 7007.3000 Minn. R. 7011.1005</p>	<p>Control efficiency limits and operational requirements taken to keep the emissions increase of the modification to less than significant as defined in 40 CFR § 52.21.</p>

3. Technical Information

3.1 Emission Calculations

Emission calculations are summarized in Appendix C. Appendix A contains a copy of the Facility Description: Potential-to-emit (by pollutant) from Delta as well as several spreadsheets to support the facilities permit. The Facility Description: Potential-to-emit (by pollutant) summarizes the PTE of the facility where as the spreadsheets contain the supporting calculations.

3.2 BACT Analysis

The BACT analysis is attached and found in appendix D. As a summary of this analysis, the following control technologies are BACT for the facility with a BACT limit of 0.15 gal/ton hexane loss on a 12-month rolling average:

Source	Control Technology
Main Vent	Condensation/Mineral Oil Absorption
Meal Processing	Optimization of the Desolventizer Toaster
Equipment Leaks	Leak Detection and Correction

3.3 Calculations of Potential to Emit and Emissions Increase Analysis

Detailed spreadsheets and supporting information are found in Appendix C.

3.4 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 complies 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;

The table below summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
Total Facility (TF)	<p>a.. Solvent Loss Ratio (SLR) less than or equal to 0.15 gallons/ton on a 12-month basis (CAAA of 1990, 40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800, 40 CFR pt 63, subp. GGGG)</p> <p>b. Hexane less than or equal to 246,375 gallons/year on a 12-month basis (40 CFR Section 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p> <p>c. Fugitive Emission Control Plan (Minn. Stat. § 116.07 subd. 4a; Minn. R. 7007.0800)</p> <p>d. Leak Detection and Correction Program (CAAA of 1990, 40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p> <p>e. Computer Dispersion Modeling (Minn. R. 7007.0800)</p>	<p>a & b. On going recordkeeping and calculation of the SLR.</p> <p>c & d. On going recordkeeping to verify actions are followed in the control plan.</p>	<p>The SLR limit complies with the consent decree and is the established BACT limit. The Hexane Usage limit originates from ADM's future potential hexane emission calculations.</p> <p>ADM will calculate and maintain record of the 12-month rolling compliance ratio calculation on a monthly basis. The intention of the maximum achievable control technology (MACT) standard is to reduce HAP emissions from the solvent extraction for Vegetable Oil Production. By complying with the monitoring and operating procedures of the rule, ADM will reduce HAP emissions. The specifications in the rule will be adequate to have reasonable assurance of compliance.</p> <p>ADM will submit the fugitive emission control plan within 60 days after permit issuance to the Commissioner for review and approval.</p> <p>ADM's Leak Detection and Correction Program satisfies an additional established BACT requirement.</p> <p>The Permittee will submit a modeling protocol within 1,096 after permit issuance to ensure that the facility meets the National Ambient Air Quality Standards (NAAQS)</p>

Fabric Filters (GP 001)	PM/PM10: the fabric filters must be maintained to achieve 99% control efficiency or greater (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800, Minn. R. 7011.1005)	Recordkeeping: O & M inspections, pressure drop and visible emissions	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.
Cyclone Units (GP 002)	PM/PM10: the cyclones must be maintained to achieve 80 percent control efficiency or greater (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800, Minn. R. 7011.1005)	Recordkeeping: O & M inspections and visible emissions.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.
Fabric Filters (GP 003)	PM/PM10: the fabric filters must be maintained to achieve 89 percent control efficiency or greater (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800, Minn. R. 7011.1005)	Recordkeeping: O & M inspections, pressure drop and visible emissions	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.
Fabric Filters (GP 004)	PM/PM10: the fabric filters must be maintained to achieve 99% control efficiency or greater (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800, Minn. R. 7011.1005)	Recordkeeping: O & M inspections, pressure drop and visible emissions	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.

Receiving (GP 005)	Process Throughput: less than or equal to 1,685,000 tons/year using a 12-month rolling sum combined (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Legs, Headhouse, Conveying (GP 006)	Process Throughput: less than or equal to 1,685,000 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Dust Storage (GP 007)	Process Throughput: less than or equal to 4,814 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Elevators and Storage (GP 008)	Process Throughput: less than or equal to 1,685,000 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.

<p>Bean Storage (GP 009)</p>	<p>Process Throughput: less than or equal to 120,000 tons/year using a 12-month rolling sum (limit to avoid NSR)</p> <p>(40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p>	<p>Recordkeeping: Daily and Monthly</p>	<p>Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.</p>
<p>Bean Heater (GP 010)</p>	<p>Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR)</p> <p>(40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p>	<p>Recordkeeping: Daily and Monthly</p>	<p>Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.</p>
<p>Bean Cleaning (GP 011)</p>	<p>Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR)</p> <p>(40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p>	<p>Recordkeeping: Daily and Monthly</p>	<p>Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.</p>
<p>Cracking, Dehulling, Conditioning (GP 012)</p>	<p>Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR)</p> <p>(40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p>	<p>Recordkeeping: Daily and Monthly</p>	<p>Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations</p>

Flaking Rolls (GP 013)	Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Hull Grinding (GP 014)	Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Hull Sifting (GP 015)	Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Pellet Mill/Cooler (GP 016)	Process Throughput: less than or equal to 75,000 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.

Pellet Storage (GP 017)	Process Throughput: less than or equal to 75,000 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
DTDC (GP 018)	a. Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800) b. Optimize efficiency (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	a. Recordkeeping: Daily and Monthly b. Recordkeeping: Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations. The optimize efficiency requirement is an established BACT limit to ensure that the group is optimally operating and minimizing emissions.
Meal Conveying (GP 019)	Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Meal Sifting/Grinding (GP 020)	Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.

Bin Top Meal Conveyor (GP 021)	Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Basement Meal Conveyor (GP 022)	Process Throughput: less than or equal to 1,642,500 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Meal Storage (GP 023)	Process Throughput: less than or equal to 1,404,430 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Bentonite Receiving/Storage (GP 024)	Process Throughput: less than or equal to 6,300 tons/year using a 12-month rolling sum (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.

Truck/Rail Meal Loadout (GP 025)	<p>Process Throughput: less than or equal to 1,399,574 tons/year using a 12-month rolling sum (limit to avoid NSR)</p> <p>(40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p>	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Refinery (GP 026)	<p>Process Throughput: less than or equal to 390,000 tons/year using a 12-month rolling sum (limit to avoid NSR)</p> <p>(40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p>	Recordkeeping: Daily and Monthly	Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.
Boilers #3 and #4 (GP 027)	<p>a. PM: ≤ 0.4 lb/MMBtu with a 3-hour basis (Minn. R. 7011.0515)</p> <p>b. SO₂: ≤ 2.0 lb/MMBTU with a 3-hour basis (Minn. R. 7011.0515)</p> <p>c. Opacity: ≤ 20 % with exceptions (Minn. R. 7011.0515)</p> <p>d. Sulfur Content of Fuel: less than 0.5 % by weight of fuel oil (Minn. R. 7007.0800)</p> <p>e. Fuel Restriction: Natural gas and Fuel oil (Minn. R. 7007.0800)</p>	<p>a., b. &c. PM, SO₂ and Opacity: None</p> <p>d. & e. Recordkeeping: Record and maintain records of the type of fuel combusted in the unit on a daily and monthly basis.</p>	Since the boilers are fired with natural gas and fuel oil as a back up, there should be no significant PM emissions or visible emissions from burning natural gas. The Permittee will check for visible emissions when burning fuel oil. Therefore, while there is an applicable requirement, the Permittee, will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by certifying that natural gas, and fuel oil is the only fuels fired in the boilers.
Grain Dryer (GP 028)	<p>a. Process Throughput: less than or equal to 75,000 tons/year using a 12-month rolling sum (limit to avoid NSR)</p> <p>(40 CFR § 52.21, Minn. R.</p>	a. Recordkeeping: Daily and Monthly	a. Daily and monthly recordkeeping ensure compliance with the process throughput limit. The limit originates from the emission calculations.

	<p>7007.3000 and Minn. R. 7007.0800)</p> <p>b. a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>c. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)</p> <p>c. SO₂ ≤ 2.0 lbs/million Btu heat input (Minn. R. 7011.0610)</p>	<p>b. & c. PM, SO₂ and Opacity: None</p>	<p>b. The likelihood of violating the PM and opacity emission standard is low as long as the units are properly maintained. The dryer is steam heated through steam provided by the facility. As a result, no additional periodic monitoring is warranted.</p>
<p>Associated Boiler #5 Operations (GP 029, CE 094(GP 001))</p>	<p>a. PM: ≤ 0.020 grains/dscf (Minn. R. 7011.1105)</p> <p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.1105)</p> <p>c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a., b. PM, Opacity: None</p> <p>c. Operate at all times when the emissions unit is in operation</p>	<p>Since this group is controlled by the associated control equipment, no additional periodic monitoring is warranted.</p>
<p>North Truck Soybean Receiving (SV 001, CE 067 (GP 003))</p>	<p>a. a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>b. Opacity: $\leq 5\%$ (fugitive) (Minn. R. 7011.1005, 40 CFR § 60.302(c)(1))</p> <p>c. Opacity: $\leq 10\%$ (control device) (Minn. R. 7011.1105)</p> <p>d. Pollution Control Equipment (§ 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a., b., & c.: Performance Test.</p> <p>d. Operate at all times when the emissions unit is in operation</p>	<p>The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations. Furthermore, the permittee will establish a testing frequency plan.</p> <p>Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.</p>
<p>South Truck Soybean Receiving (SV 002, CE 068 (GP 003))</p>	<p>a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>b. Opacity: $\leq 5\%$ (fugitive) (Minn. R. 7011.1005, 40 CFR § 60.302(c)(1))</p>	<p>a., b., & c.: None</p> <p>d. Operate at all times when the emissions unit is in operation</p>	<p>Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.</p>

	<p>c. Opacity: $\leq 10\%$ (control device) (Minn. R. 7011.1105)</p> <p>d. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>		
Truck/Rail Soybean Receiving (SV 003, CE 069 (GP 003))	<p>a. PM: ≤ 0.01 grains/dscf (40 CFR § 60.302(b)(1), Minn. R. 7007.0800)</p> <p>b. Opacity: $\leq 0\%$ (40 CFR § 60.302(b)(1), Minn. R. 7007.0800)</p> <p>c. Opacity: $\leq 5\%$ (fugitive) (Minn. R. 7011.1005)</p> <p>d. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a., b., & c.: None</p> <p>d. Operate at all times when the emissions unit is in operation</p>	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Elevators and Storage (SV 004, CE 070 (GP 001))	<p>a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)</p> <p>c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a. & b.: None</p> <p>c. Operate at all times when the emissions unit is in operation</p>	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Bean Storage Tank (SV 005)	<p>a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)</p>	a. & b.: None	The likelihood of violating the PM and opacity emission standard is low as long as the units are properly maintained.
Dust Storage (SV 006, CE 071 (GP 001))	<p>a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>b. Opacity: $\leq 20\%$</p>	<p>a. & b.: None</p> <p>c. Operate at all times when the emissions unit is in</p>	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.

	(Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	operation	
Hull Sifting Tables (SV 007, CE 073 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Drying Cracking/Dehulling/Conditioning (SV 009, CE 103 (GP 002))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Flaking Rolls (SV 010, CE 076 (GP 002))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Flaking Rolls (SV 011, CE 077 (GP 002))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000;	a., & b.: Performance Test. c. Operate at all times when the emissions unit is in operation	The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations. Furthermore, the permittee will establish a testing frequency plan. Since the Stack Vent is controlled by the associated control

	Minn. R. 7007.0800)		equipment, no additional periodic monitoring is warranted.
Flaking Rolls (SV 012, CE 105 (GP 002))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Hull Grinders (SV 013, CE 075 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a., & b.: Performance Test. c. Operate at all times when the emissions unit is in operation	The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations. Furthermore, the permittee will establish a testing frequency plan. Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Pellet Mill /Cooler (SV 014, CE 080 (GP 002))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Bin Top Meal Conveyor (SV 015, CE 083 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000;	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.

	Minn. R. 7007.0800)		
Pellet Storage (SV 016)	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)	a. & b.: None	The likelihood of violating the PM and opacity emission standard is low as long as the units are properly maintained.
Mineral Oil System (SV 017, CE 099)	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR \S 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
DTDC (Dryer/Cooler) (SV 018, CE 015, 072, 074, 098, 106 (GP 002))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR \S 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a., & b.: Performance Test. c. Operate at all times when the emissions unit is in operation	The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations. Furthermore, the permittee will establish a testing frequency plan. Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Conveying to Meal Sifting/Grinding (SV 019, CE 079 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR \S 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Meal Sifting/Grinders (SV 020, CE 081 (GP	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)	a., & b.: Performance Test.	The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and

001))	c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	c. Operate at all times when the emissions unit is in operation	update emission calculations. Furthermore, the permittee will establish a testing frequency plan. Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Flowability Agent Unloading and Storage (SV 021, CE 082 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Truck Bins Conveying (SV 022, CE 084 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Elevator Discharge Meal Conveying (SV 023, CE 085 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Truck Meal Loadout (SV 024, CE 086 (GP 003))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control	a., & b.: Performance Test. c. Operate at all times when the emissions unit is in	The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations. Furthermore, the permittee will establish a testing frequency plan.

	Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Rail Meal Loadout (SV 025, CE 087 (GP 003))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Coal Receiving/Limestone Receiving/Fly Ash Loadout (SV 026, CE 088 (GP 003))	a. Minimize Fugitive emissions (Minn. R. 7011.1110, Minn. R. 7011.1105) b. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. Weekly Inspections b. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
South Coal Day Bin (SV 027, CE 093 (GP 001))	a. PM: ≤ 0.020 grains/dscf (Minn. R. 7011.1105) b. Opacity: ≤ 20% (Minn. R. 7011.1105) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Coal/Limestone Silos (SV 028, CE 090 (GP 001))	a. PM: ≤ 0.020 grains/dscf (Minn. R. 7011.1105) b. Opacity: ≤ 20% (Minn. R. 7011.1105) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.

Coal/Limestone Transfer (SV 029, CE 091 (GP 001))	<p>a. PM: ≤ 0.020 grains/dscf (Minn. R. 7011.1105)</p> <p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.1105)</p> <p>c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a. & b.: None</p> <p>c. Operate at all times when the emissions unit is in operation</p>	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
North Coal Day Bin (SV 030, CE 092 (GP 001))	<p>a. PM: ≤ 0.020 grains/dscf (Minn. R. 7011.1105)</p> <p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.1105)</p> <p>c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a. & b.: None</p> <p>c. Operate at all times when the emissions unit is in operation</p>	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Limestone Day Bin (SV 031, CE 089 (GP 001))	<p>a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)</p> <p>c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a. & b.: None</p> <p>c. Operate at all times when the emissions unit is in operation</p>	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Emergency Diesel Generator (SV 035)	<p>a. SO₂: ≤ 0.5 lb/MMBTU with a 3-hour basis (Minn. R. 7011.2300)</p> <p>b. Opacity: $\leq 20\%$ with exceptions (Minn. R. 7011.2300)</p> <p>c. Sulfur Content of Fuel: less than 0.5 % by weight of fuel oil (Minn. R. 7007.0800)</p> <p>d. Fuel Restriction: Fuel oil (Minn. R. 7005.0100)</p>	<p>a. & b. SO₂ and Opacity: None</p> <p>c., d. & e. Recordkeeping: Record and maintain records of the type of fuel combusted in the unit and the hours of operation.</p>	As an emergency generator, the Permittee will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by the associated requirements.

	e. Hours of operation (Minn. R. 7007.0800)		
Fly Ash Transfer (SV 036, CE 095 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Fly Ash Silo (SV 037, CE 097 (GP 001))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Bleaching Clay Storage (SV 061, CE 061 (GP 004))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Filter Aid Storage (SV 062, CE 062 (GP 004))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a. & b.: None c. Operate at all times when the emissions unit is in operation	Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Adsorbent	a. PM: ≤ 0.3 grains/dscf	a. & b.: None	Since the Stack Vent is controlled

(SV 063, CE 063 (GP 004))	(Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	c. Operate at all times when the emissions unit is in operation	by the associated control equipment, no additional periodic monitoring is warranted.
Hot Well Vent (SV 064)	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20% (Minn. R. 7011.0715)	a. & b.: None	The likelihood of violating the PM and opacity emission standard is low as long as the units are properly maintained.
Reformer (SV 065)	a. PM: ≤ 0.4 lb/MMBtu with a 3-hour basis (Minn. R. 7011.0510) b. Opacity: ≤ 20 % with exceptions (Minn. R. 7011.0510) c. Fuel Restriction: Natural gas (Minn. R. 7007.0800)	a. & b. None c.: Recordkeeping: Record and maintain records of the type of fuel combusted in the unit on a monthly basis.	Since the reformer is fired with natural gas, there should be no significant PM emissions or visible emissions. Therefore, while there is an applicable requirement, the Permittee, will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by certifying that natural gas is the only fuel fired in the reformer.
Steam Generator A (SV 066)	a. PM: ≤ 0.4 lb/MMBtu with a 3-hour basis (Minn. R. 7011.0510) b. Opacity: ≤ 20 % with exceptions (Minn. R. 7011.0510) c. Fuel Restriction: Natural gas (Minn. R. 7007.0800)	a. & b.: None c.: Recordkeeping: Record and maintain records of the type of fuel combusted in the unit on a daily and monthly basis.	Since the reformer is fired with natural gas, there should be no significant PM emissions or visible emissions. Therefore, while there is an applicable requirement, the Permittee, will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by certifying that natural gas is the only fuel fired in the reformer.
Steam Generator B (SV 067)	a. PM: ≤ 0.4 lb/MMBtu with a 3-hour basis (Minn. R. 7011.0510) b. Opacity: ≤ 20 % with exceptions	a. & b.: None c.: Recordkeeping: Record and	Since the reformer is fired with natural gas, there should be no significant PM emissions or visible emissions. Therefore, while there is an applicable

	(Minn. R. 7011.0510) c. Fuel Restriction: Natural gas (Minn. R. 7007.0800)	maintain records of the type of fuel combusted in the unit on a daily and monthly basis.	requirement, the Permittee, will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by certifying that natural gas is the only fuel fired in the reformer.
Boiler #6 (SV 068)	a. PM: ≤ 0.0275 lb/MMBtu heat input on a 3-hour rolling average basis (40 CFR § 52.21 (limit to avoid NSR), Minn. R. 7007.3000, Minn. R. 7007.0800 and Minn. R. 7011.0510) b. PM10: ≤ 0.0165 lb/MMBtu heat input on a 3-hour rolling average basis (40 CFR § 52.21 (limit to avoid NSR), Minn. R. 7007.3000, Minn. R. 7007.0800 and Minn. R. 7011.0510) c. Opacity: ≤ 20 % with exceptions (Minn. R. 7011.0515) c. Fuel Restriction: Natural gas (40 CFR § 52.21)	a., b. &c. PM, PM10 and Opacity: None c. Recordkeeping: Record and maintain records of the type of fuel combusted in the unit on a daily and monthly basis.	The boiler is fired with natural gas so there should be no significant PM emissions or visible emissions. Therefore, while there is an applicable requirement, the Permittee, will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by certifying that natural gas is the only fuel fired.
Bean Heater (SV 069, CE 101 (GP 002))	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715) b. Opacity: ≤ 20 % (Minn. R. 7011.0715) c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)	a., & b.: Performance Test. c. Operate at all times when the emissions unit is in operation	The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations. Furthermore, the permittee will establish a testing frequency plan. Since the listing is controlled by the associated control equipment, no additional periodic monitoring is warranted.
Grain	a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)	a. & b.: None	Since the Stack Vent is controlled

<p>Conveying/Be an Cleaning (SV 070, CE 102 (GP 001))</p>	<p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)</p> <p>c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>c. Operate at all times when the emissions unit is in operation</p>	<p>by the associated control equipment, no additional periodic monitoring is warranted.</p>
<p>Escher Wyss Baghouse (SV 071, CE 100, CE 103)</p>	<p>a. PM: ≤ 0.3 grains/dscf (Minn. R. 7011.0715)</p> <p>b. Opacity: $\leq 20\%$ (Minn. R. 7011.0715)</p> <p>c. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>	<p>a., & b.: Performance Test.</p> <p>c. Operate at all times when the emissions unit is in operation</p>	<p>The Permittee will test to verify PM emissions, PM10 emission factors, opacity and develop emission factors to verify and update emission calculations. Furthermore, the permittee will establish a testing frequency plan.</p> <p>Since the Stack Vent is controlled by the associated control equipment, no additional periodic monitoring is warranted.</p>
<p>Boiler #5 (EU 037, CE 094 (GP 001))</p>	<p>a. PM: ≤ 0.051 lb/MMBtu heat input using a 3-hour rolling average with exceptions (40 CFR § 60.43, Minn. R. 7007.0800)</p> <p>b. Opacity: $\leq 20\%$ with exceptions (40 CFR § 60.43, Minn. R. 7007.0800)</p> <p>c. SO₂: ≤ 0.75 lb/MMBtu heat input using a 30 day rolling average (western coal) (40 CFR § 52.21 (BACT limit), 40 CFR § 60.42, Minn. R. 7007.3000, Minn. R. 7007.0800)</p> <p>d. SO₂: ≤ 0.92 lb/MMBtu heat input using a 30 day rolling average (otherwise) (40 CFR § 52.21 (BACT limit), 40 CFR § 60.42, Minn. R. 7007.3000, Minn. R.</p>	<p>a. None</p> <p>b. Continuous Opacity Monitoring System (COMS)</p> <p>c. d. & e. Continuous Emission Monitors for NO_x and SO₂.</p> <p>f. Performance Test</p> <p>g. Operate at all times when the emissions unit is in operation</p>	<p>Continuous monitors will verify compliance. The performance test will establish a means to verify compliance with the CO limit. Since the Emission Unit is controlled by the associated control equipment, no additional periodic monitoring is warranted.</p>

	<p>7007.0800)</p> <p>e. NO_x: ≤ 0.60 lb/MMBtu heat input using a 30 day rolling average with exceptions (40 CFR § 60.44, Minn. R. 7007.0800)</p> <p>f. CO: ≤ 0.25 lb/MMBtu heat input using a 30 day rolling average (40 CFR § 52.21 (BACT limit), Minn. R. 7007.3000, Minn. R. 7007.0800)</p> <p>g. Pollution Control Equipment (40 CFR § 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800)</p>		
<p>Cold H₂O Cond – MO Absorber (Cold Water Condenser – Mineral Oil Absorber) (CE 099)</p>	<p>VOC: equipment must be maintained to achieve 95 percent control efficiency or greater (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800)</p>	<p>Recordkeeping: O & M, temperatures, flow rates, inspections, calibrations</p>	<p>Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.</p>
<p>Fabric Filter (CE 100)</p>	<p>PM/PM₁₀: the fabric filters must be maintained to achieve 99 percent control efficiency or greater (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R. 7007.0800, Minn. R. 7011.1005)</p>	<p>Recordkeeping: O & M inspections, pressure drop and visible emissions</p>	<p>Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.</p>
<p>Centrifuge (CE 103)</p>	<p>PM/PM₁₀: the device must be maintained to achieve 80 percent control efficiency or greater (limit to avoid NSR) (40 CFR § 52.21, Minn. R. 7007.3000 and Minn. R.</p>	<p>Recordkeeping: O & M inspections, pressure drop and visible emissions</p>	<p>Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.</p>

	7007.0800, Minn. R. 7011.1005)		
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3.5 Insignificant Activities

ADM has several operations, which are classified as insignificant activities. These are listed in Appendix B to the permit. These insignificant emission units (IEU) are subject to the state general applicable requirements. It is our belief that IEU's listed in Appendix B to the permit associated with inconsequential environmental impacts and present little potential for violations of generally applicable requirements, therefore no monitoring will be required.

3.6 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One item that deviates from guidance is the listing of certain applicable requirements at the group level even though they apply at the individual unit or control device. In general, limits that apply to individual pieces of equipment should be tracked at the unit level or stack/vent level and should not be listed as a GP. The main reason is if there is noncompliance with a limit by one unit within the group, the computer system would say the whole group was out of compliance.

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.

3.7 Comments Received

No comments were received during the comment period.

4. Conclusion

Based on the information provided by ADM Oilseed Processing- Mankato Facility, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit Application 01300007-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules. This permit is being issued under Title V issuance goals.

Staff Members on Permit Team:
Permit writer/Engineer: Steven Gorg
Enforcement Staff: Scott Parr
Peer Reviewer: Amrill Okonkwo
Support Staff: Laurie O'Brien
Data Entry: Beckie Olson

Attachments: A. Form CD-01 (Compliance Plan)
B. PTE Summary and Emission Calculation
C. BACT Analysis

Attachment A
Form CD-01 (Compliance Form)
(Paper Copy Only)

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Attachment B
PTE Summary and Emission Calculation
(Paper Copy Only)

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Attachment C
BACT Analysis

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**PREVENTION OF SIGNIFICANT DETERIORATION
CONSTRUCTION PERMIT APPLICATION FOR SOYBEAN
PLANT EXPANSION
MANKATO, MINNESOTA**

MARCH 2004

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1.0 INTRODUCTION

Archer Daniels Midland Company (ADM) operates a soybean processing facility in Mankato, Minnesota whose primary function is to produce vegetable oil and soy meal. ADM is proposing to expand its plant to accommodate the throughput of more soybeans. The proposed project will more fully realize the capacity of existing extraction equipment. The proposed project was designed to raise the plant capacity to 150,000 BPD (based on a 12-month rolling average), equivalent to 4500 short tons per day. In order to raise the plant capacity, additional equipment is needed for bean cleaning, heating, cracking, de-hulling, and flaking. Additionally, some undersized conveyors and pumping equipment will be upgraded or replaced.

The existing whole bean cleaning system will be upgraded to provide for higher rates and to more effectively clean the beans prior to heating and drying steps. The capacity of conveying throughout the cleaning system will need to be increased. In order to increase drying ability and provide for higher capacities, a bean heater will be installed ahead of the existing bean dryer. The heater and associated equipment will utilize low pressure steam to raise the temperature of the incoming beans to more effectively dry the beans in subsequent processing steps.

Additional equipment is needed to increase the throughput of soybean preparation equipment prior to solvent extraction. Additions are needed for cracking, de-hulling, hull grinding and flaking capacity. More cracking rolls will be installed to provide additional capacity. Primary aspirators and associated equipment will be installed to separate the hulls from the cracked beans. Additional secondary de-hulling equipment and conveyors will be installed to handle the additional load. Upgrades to the hull grinding equipment will be needed. Flaking capacity will be increased by adding additional flaking mills. Additional drag conveyors will be installed to convey cracks to and flakes away from the additional flaking mills. Modifications will be made to provide adequate aspiration for the flaking system.

The finished oil pumping system will be upgraded to provide sufficient capacity to storage. Additionally, pumps for miscella from the extractor and throughout distillation will have to be upgraded.

Other upgrades and modifications will be required to complete the facility upgrade. Upgrades of conveying from meal processing to storage will be made. A bag house will be installed to provide dust collection on the exhaust of the bean dryer in order to control particulate matter emissions. The existing de-hulling bag house is inadequate to provide the necessary dust control with the additional load. Therefore, an additional bag house will be installed to provide dust control for bean cleaning and related equipment. Electrical switchgear, distribution equipment, and PLC hardware will also be installed to power and control the added equipment.

Currently, the soybean facility has the potential to emit more than 250 tons per year (tpy) of volatile organic compounds (VOCs) and is located in an attainment area for ozone. The proposed expansion will result in a greater than 40 tpy increase in VOC emissions. According to the U.S. Environmental Protection Agency (EPA), these three conditions cause the Prevention of Significant Deterioration (PSD) regulations to be applicable to this modification (Ref. 1). The following information must be provided as part of the PSD application: (1) analysis of the Best Available Control Technology (BACT) for VOC emissions, (2) an ambient air quality impact analysis, and (3) an additional impacts analysis.

The BACT analysis is a determination of an emission limit based on the maximum degree of reduction for each regulated air pollutant emitted for the proposed modification, on a case-by-case basis, taking into account energy, environmental, and economic impacts through the application of techniques to control emissions. The ambient air quality impacts analysis demonstrates that new emissions from the proposed modification, in conjunction with other applicable emissions from existing sources, will not cause or contribute to a violation of any applicable national ambient air quality standard (NAAQS) or PSD increment. The additional impacts analysis is an assessment of the impacts of air, ground, and water pollution on soils, vegetation, and visibility caused by an increase in emissions of any regulated pollutant from the modification under review and from associated growth.

The ADM Mankato facility is located at 2019 3rd Ave., which is in the city limits of Mankato, Minnesota. It is subject to the rules and regulations of the Minnesota Pollution Control Agency (MPCA), which this application is being submitted.

Potential emissions are expected to exceed levels triggering the need to obtain a construction permit under MPCA Rules. For Hazardous Air Pollutants (HAP) the MPCA can issue a permit for a proposed modification of a source emitting above a specified level of HAP if the source applies BACT for each HAP. It is anticipated that hexane will potentially be emitted in quantities greater than significant levels. The BACT analysis presented fulfills the federal and state requirements.

Section 2.0 of this report presents the BACT analysis for VOC emissions following the federal top-down approach. Section 3.0 presents the emission estimates, Section 4.0 presents ambient air quality analysis, and Section 5.0 presents the additional impacts analysis.

2.1 Process Information

This section presents a general description of processes that have the potential to emit VOCs resulting from vegetable oil extraction of soybeans. To facilitate the discussion, each unit operation is discussed separately. Within a soybean processing plant, beans are received, cleaned and conditioned in preparation for the extraction of the oil. Vegetable oil is chemically extracted from the bean using hexane as the extracting agent. The oil is then separated from the hexane. The hexane is removed from the soybean meal and the meal is further processed prior to shipment. The hexane is recovered and reused in the extractor. The process information presented is solely for those processes in which hexane is emitted.

2.1.1 Solvent Extraction

Soybeans which have been preconditioned (i.e., heated and flaked) are conveyed to a shallow bed, percolation type, continuous extractor in which they are washed with hexane and a mixture of hexane and oil, called miscella. The extractor, which operates under slightly negative pressure (vacuum), utilizes a double drag chain and flight moving inside a stationary casing, conveying the flakes over sections of wedge wire screen. The flakes become saturated with hexane and the hexane extracts the oil contained in the flakes. The resulting oil and solvent mixture (miscella) is recovered from the flakes. The flows of hexane and flakes are countercurrent to ensure maximum extraction. The miscella drains through the wedge wire screens to lower compartments where it is pumped countercurrent to the traveling flakes. When the miscella is completely drained, the flakes are discharged into the vapor-tight conveyor, which conveys the material to the desolventizer-toaster-dryer-cooler (DTDC). Vapors from the extraction process are vented under negative pressure through condensers and a mineral oil absorption system and exhausted through the main vent. After extraction, the material consists of two streams: spent flakes and miscella. The spent flakes are conveyed to the DTDC for further processing. The miscella is separated in the distillation system.

2.1.2 Meal Processing

The spent flakes leaving the extractor contain hexane, which is removed in the DTDC as follows. The DTDC is one vessel consisting of several vertically stacked trays that hold the spent flakes during processing. The DTDC system operates under vacuum. Hexane is removed from the spent flakes by steam, recovered, and recycled to avoid the possibility of an explosion farther downstream in the process and to minimize operating costs. Spent flakes are introduced into the upper trays, which are heated with indirect steam to vaporize the hexane and to initiate heating of the meal. The flakes are transferred to the middle trays, where they are toasted to produce a high quality meal. Both of these processes are made possible by the introduction of steam through a deck positioned below these process areas. Vapor emissions from these areas are vented under vacuum through a series of evaporators, condensers, and a mineral oil absorption system and then exhausted through the main vent. The vapors are used in the first-stage evaporator for non-contact heat transfer with miscella, which helps to cool and condense the steam/hexane mixture. The remaining vapors pass through the vapor contactor, the DT condenser, and the final vent condenser before going to the mineral oil system.

Following desolventizing, the flakes pass through a rotary valve to the dryer-cooler section of the DTDC. The dryer/cooler section consists of five decks, the top four for drying and the lower deck for cooling). The moisture content of the meal is reduced in this portion of the DTDC by passing hot air through the meal in the dryer decks. The cooler deck passes ambient air through the meal to affect cooling. Each deck is equipped with its own centrifugal collector (cyclone) and exhausted to the atmosphere.

After the DTDC, the meal is sifted into coarse and fine particles. The coarse particles are ground in a meal grinder to achieve the desired size. After sizing and grinding, the meal is transferred to storage and loadout areas.

2.1.3 Solvent/Oil Distillation

Hexane is distilled from the vegetable oil using a combination of heat and vacuum. Miscella from the extractor is separated into oil and solvent by two-stage evaporation (vacuum distillation). After evaporation, oil flows to an oil stripper, which removes the remaining traces of solvent by low pressure steam stripping and by applying vacuum. The stripped oil is cooled and collected.

The solvent/water vapors from the evaporators are condensed, and the condensate is pumped or gravity-fed to the solvent/water separator, a continuous decanting system that discharges vapors to the vent condenser and then to the mineral oil absorption system. Hexane overflows from the work tank side of the separator to hexane storage which is vented to the vent condenser and then to the mineral oil absorption system. The water from the decanting system underflows to the waste water evaporator. Steam stripping and vacuum are incorporated in the reboiler to remove trace amounts of hexane. The hexane vapors generated are also routed to the vent condenser and then to the mineral oil absorption system. The water flows from the wastewater evaporator to the wastewater treatment system prior to discharge.

2.1.4 Solvent Recovery

Due to the large quantities of hexane used in the extraction process and the ever increasing price of hexane, soybean processing plants incur significant costs associated with the use of hexane. Additionally, the hexane solvent must be removed from the products and recovered for safety reasons. Due to the explosive nature of hexane at relatively low concentrations, hexane must be controlled. Because hexane can be recovered and recycled throughout the extraction process, these plants have an economic and safety incentive to capture and recover as much hexane as possible.

2.2 Sources of VOC Emissions

Very little information is available regarding sources of VOC emissions from vegetable oil extraction from soybeans. The most comprehensive information is found in a U.S. Environmental Protection Agency (EPA) publication, as part of the Control Technology Guidelines series, titled *Control of Volatile Organic Emissions from Manufacture of Vegetable Oils* (Ref. 2). VOC emissions based on one ton of raw soybean input are presented in Table 2-1, as taken from the EPA document. As can be seen, approximately 74 percent of the VOC emissions were estimated to be emitted from the uncontrolled main vent. Additional losses occur from the dryer/cooler vents, meal product, oil, wastewater, solvent storage, equipment leaks, and non-operational losses (start-up, shutdown, and downtime). Emissions from these other sources are fairly small (i.e., none of the alone exceeds seven percent of the total VOC emissions). With such a majority of the emissions arising from the main vent, it is easy to understand why so much of the VOC control and recovery efforts in the industry have focused on this single point source.

Table 2-1

Estimated Average Solvent Losses from Reasonably Well-Operated Soybean Plants (Based on 1 Ton of Raw Soybeans Input)

Point of Solvent Loss	Solvent Loss (LB/ton)	Solvent Loss (gal/ton)	Percentage of Overall Loss
Operational Losses			
Main Vent (uncontrolled)	11.80	2.13	73.84
Dryer/Cooler Vents	1.10	0.20	6.88
Meal Product	1.10	0.20	6.88
Oil	0.36	0.07	2.25
Waste Water	0.10	0.02	0.63
Solvent Storage	0.20	0.04	1.25
Equipment Leaks	0.66	0.12	4.13
Total Operational Losses	15.32	2.77	95.87
Non-Operational Losses			
Startup and Shutdown	0.33	0.06	2.07
Downtime	0.33	0.06	2.07
Total Uncontrolled Losses	15.98	2.89	100.00

2.3 Identification of Control Technologies

For Mankato Minnesota's Soybean Processing Plant, there are three main sources of VOC emissions that were analyzed for BACT: (1) the main vent, which vents vapors from the solvent extractor, solvent recovery system, and the desolventizer section of the DTDC; (2) meal processing; and (3) equipment leaks. To identify potential control options and previous BACT determinations a search was made through the following information sources:

- EPA's Reasonably Available Control Technology (RACT)/BACT/Lowest Achievable Emission Rate (LAER) Clearinghouse;
- EPA's Control Technology Center (CTC);
- EPA's New Source Review Policy Guidance and Memos Notebook;
- BACT Guideline, South Coast Air Quality Management District;
- State New Source Review permitting agencies (Ohio, Missouri, Texas);
- Journal articles; and
- ADM Corporate resources.

Based on this review, Table 2-2 summarizes the control technologies that need to be considered for BACT for each of the three emission streams.

Table 2-2

Summary of Potential VOC Control Technologies

Emission Source	Control Technology
Main Vent	<ul style="list-style-type: none">• Condensation• Condensation/Mineral Oil Absorption• Carbon Adsorption• Incineration
Meal Processing	<ul style="list-style-type: none">• Improvement in Desolventization• Carbon Adsorption• Incineration
Equipment Leaks	<ul style="list-style-type: none">• Leak Detection and Correction

2.3.1 Control of VOC Emissions from the Main Vent

2.3.1.1 Condensation

Condensation is a separation and control technique in which one or more volatile components of a vapor mixture are separated from the remaining vapors through saturation followed by a phase change. The phase change from gas to liquid can be achieved in two ways: (1) the system pressure can be increased at a given temperature or (2) the temperature may be lowered at a constant pressure. In a two-component system where one of the components is non-condensable (e.g., air), condensation occurs at dew point (saturation) when the partial pressure of the volatile compound is equal to its vapor pressure. The more volatile a compound (e.g., the lower the normal boiling point), the larger the amount that can remain as vapor at a given temperature, hence the lower the temperature required for saturation (condensation). Condensers are used as air pollution control devices for treating emission streams with high VOC concentrations, usually >5000 ppmv (Ref. 3).

2.3.1.2 Condensation/Mineral Oil Absorption

Absorption is a mass transfer operation in which one or more soluble components of a gas mixture (e.g., hexane) are dissolved in a liquid that has low volatility under the process conditions (e.g., mineral oil). The pollutant diffuses from the gas into the liquid when the liquid contains less than the equilibrium concentration. The equilibrium concentration provides the driving force for absorption. A properly designed gas absorber will provide thorough contact between the gas and the solvent to facilitate diffusion of the pollutant(s). Absorbers are used as air pollution control devices for treating emission streams with VOC concentrations in excess of 500 ppmv (Ref. 3). Mineral oil absorption is the mainstay of solvent recovery practice in the oilseed processing industry in the United States and throughout the world (Ref. 4).

A typical condensation/mineral oil absorber system works as follows to control and recover hexane from a vegetable oil extraction process. Solvent vapors are transported via negative pressure by a vent fan to a series of indirect, water cooled condensers and to the main vent condenser where solvent vapors are cooled. The condensers are all vented to the mineral oil absorption system. This system reduces the amount of hexane escaping to the atmosphere and consists of a mineral oil absorption column, stripper column, and mineral oil coolers and heaters. Cooled mineral oil flows counter current to solvent vapors to absorb approximately 95 to 98% of the hexane (Ref. 5). The contaminated mineral oil from the absorption column is stripped with steam and vacuum in the stripping column, and the resulting clean oil is cooled and recycled back to the absorption column. The stripped vapors are condensed and recycled to the solvent/water separator. Residual hexane emissions are discharged from the absorption column and vented through a final exhaust vent.

2.3.1.3 Carbon Adsorption

Adsorption of VOCs onto activated carbon is an available add-on control technology. VOCs are removed from the gas stream by contacting and adsorbing onto activated carbon particles. Carbon adsorption systems can be designed to be very efficient. As design efficiency increases, however, the required adsorbent bed depth and pressure drop through the system increases. Typical commercially available carbon adsorption systems can achieve between 85 and 90 percent control efficiency for emission streams containing greater than 500 ppmv VOCs (Ref. 3).

Carbon adsorption can be used to recover VOCs and subsequently make them available for reuse within the system. Just prior to the carbon being saturated, the adsorber and source are shut down or process flows routed to another adsorber. The desorption cycle is then initiated, which consists of three steps: (1) regeneration of the carbon bed by heating, generally blowing steam through the bed in the direction opposite to the gas flow; (2) drying of the bed, with compressed air or a fan; and (3) cooling the bed to its operating temperature via a fan. The desorbed gas stream containing steam and VOCs is routed to a condenser and then a decanter to recover the VOCs for reuse.

2.3.1.4 Incineration

Incineration (both thermal and catalytic) heats the emission stream to approximately 1600°F where VOCs are oxidized to carbon dioxide and water. Catalytic incinerators differ from thermal incinerators in that they use a bed of active material (catalyst) to increase the reaction rate, enabling conversion at a lower reaction temperature than thermal units. The emission stream must still be heated to between 300°F and 900°F to initiate the reaction. Incinerators can have a high efficiency when the emission stream is heated to very high temperatures and held in the combustion zone for adequate time (generally around one second). Thermal oxidation units rely on a direct flame to heat the

emission stream to its ignition temperature. Typical commercially available add-on control devices can achieve between 70 and 90% control efficiency depending on the particular installation. The advantage to incineration systems is that they can achieve high control efficiencies on emission streams containing relatively low concentrations of VOCs, greater than 50 ppmv (Ref. 3).

2.3.2 Control of VOC Emissions from Meal Processing

VOC emissions from meal processing are generally characterized by low concentrations and high flow rates. Because of these characteristics, meal processing emissions have historically been controlled by pollution prevention methods due to the unreasonable costs of trying to implement add-on controls. However, for the sake of completeness, the following control options have been identified for this BACT analysis.

2.3.2.1 Optimization of the Desolventizer Toaster/Dryer/Cooler

A faulty or poorly designed or operated DTDC may result in inadequate desolventization of the meal. This results in higher VOC emissions from all downstream meal processing, including the subsequent dryer and cooler vents and meal grinding and meal loadout. Emission reductions at all meal processing vents may be achieved by improving the desolventizing equipment to effect better operation. Replacement or improvement in the desolventizing equipment has the following advantages: reduced VOC loss, increased meal quality, enhanced loss prevention, possible reduced steam consumption, and reduced environmental impacts.

2.3.2.2 Carbon Adsorption

A general description of carbon adsorption is provided in Section 2.3.1.3.

2.3.2.3 Incineration

A general description of incineration is provided in Section 2.3.1.4.

2.3.3 Control of VOC Emissions from Equipment Leaks

2.3.3.1 Leak Detection and Correction

Periodic maintenance inspection of equipment used to transfer potential VOC sources can reduce emissions. Equipment to be inspected includes pumps, valves, agitators, pipes, flanges, seals, and packing glands. Any component suspected of operating improperly on the basis of sight, sound, or smell should be repaired as soon as possible. These repairs may include pump and pump seal replacement or repair, gasket replacement, and possible repair of valves and flanges used in the transport of organics. In addition to minimizing solvent loss through mechanical sources, this maintenance program may decrease plant shutdowns. Annual emission reductions from periodic inspection and maintenance would depend on the number of each type of component and the diligence of maintenance personnel in accomplishing repairs.

2.4 Technical Feasibility

The technical feasibility of each of the identified control techniques is defined in the draft New Source Review Workshop Manual (Ref. 1) as follows. For technologies that are demonstrated – if the control technology has been installed and operated successfully on the type of source under review, the technology is deemed technically feasible. However, if the technology has not been successfully demonstrated on the type of source under review, the analysis must demonstrate that the technology is “available” and “applicable”. A technology is “available” if it can be obtained by the applicant through commercial channels or is otherwise available within the common sense meaning of the term. An available technology is “applicable” if it can reasonably be installed and operated on the source type under consideration.

2.4.1 **Technical Feasibility of Controlling Emissions from the Main Vent**

2.4.1.1 Condensation

Condensers are commonly used on the main vent. The condensers typically reduce the hexane content of the gas stream by approximately 35% by volume (Ref. 2). This technology is considered technically feasible.

2.4.1.2 Condensation/Mineral Oil Absorption

Condensation/mineral oil absorption systems have been installed and operated successfully on the main vent at many vegetable oil extraction plants (Ref. 4). A well-operated condensation/mineral oil absorber system can exceed efficiencies of 95-98% (Ref. 5). Hence, this technology is considered technically feasible.

2.4.1.3 Carbon Adsorption

Carbon adsorption systems were applied rather widely to the main vent stream from solvent extraction plants in the late 1940s and early 1950s. However, the carbon fouled rapidly with contaminants, and the efficiency of the units was often suspect. In the 1950s, mineral oil absorption systems began to replace carbon units. By the 1970s, mineral oil absorption became the system of choice. This was primarily for greater safety, but also since this system offered additional hexane recovery due to increased hours of operation at design conditions. They also required less energy for operation.

Carbon adsorbers can overheat for several reasons. Among these are poor conditioning of the carbon (which can create dead spots where cooling by the carrier media cannot occur rapidly enough) and over drying of the carbon bed during surges caused by process upsets. The adsorption of VOCs (such as hexane) on activated carbon generates heat equivalent to the latent heat of vaporization for the compound being adsorbed. Under the conditions listed above, the heat generated by adsorption can accumulate in the bed, causing the temperature to rise to the point where ignition will occur. Good design and control can eliminate overheating in the carbon bed, but during an upset or when the equipment or controls fail, as they invariably will, overheating will occur. Carbon adsorbers do not fail to a safe mode. Failure of the adsorption system's components will lead to overheating.

This makes the carbon adsorbers a potential source of ignition and an explosion hazard.

While fires caused by overheating are usually contained by the adsorber vessel, the vessel is directly connected to the process by duct work, which allows a flame path back to the process, creating an unacceptable risk of explosion. The most likely time for fire to occur in the adsorber is during process upsets when solvent vapor will fill the duct connecting the process to the adsorber. Design efforts over the last half century have been directed toward removing ignition sources from the process in order to prevent this last scenario, which would lead to catastrophic fire and explosion. In fact, the Memphis and Shelby county Health Department and EPA have recognized that carbon adsorption is not considered an applicable control choice since the possibility of bed fires is present (Ref. 5).

2.4.1.4 Incineration

Incineration is not used to reduce emissions in extraction plants in the oilseed industry. The waste gases that would be ducted to the control device cover a wide range of flow volumes and solvent concentrations. Variable flows and solvent concentrations greatly hamper safe and efficient operation. Exposure of the entire extraction plant to the ignition source resulting from a flashback in the duct system to the incinerator is considered an unjustifiable risk.

The National Fire Protection Association (NFPA) standards for extraction plants require that any flame operations (e.g., incinerators) be located at least 100 ft. away from the processing area (Ref. 6). These standards also preclude direct vapor pathways to flame operations. For these reasons incineration is not an applicable technology and does not warrant further consideration as a potential control device.

2.4.2 **Technical Feasibility of Controlling Emissions from Meal Processing**

Improvements in the operation and efficiency of the DTDC have been implemented in vegetable oil extraction plants. Hence, they are technically feasible. Carbon adsorption and incineration are technically infeasible for reasons stated in Sections 2.4.1.3 and 2.4.1.4, respectively.

2.4.3 **Technical Feasibility of Controlling emissions from Equipment Leaks**

Leak detection and correction programs are commonly employed at vegetable oil extraction plants. Therefore, this is a technically feasible control option.

2.5 **Technology Ranking and Economic and Energy Analysis**

2.5.1 **Technology Ranking for the Main Vent**

Condensation and condensation plus mineral oil absorption are the only feasible technologies remaining for controlling VOC emissions from the main vent. Table 2-3 presents the anticipated control efficiency for each of the control technologies as applied to the main vent.

Table 2-3

Ranking of Hexane Emission Control Technologies for the Main Vent

Control Technology	Control Efficiency
Condensation plus mineral oil absorption	95%
Condensation	35%

2.5.2 Technology Ranking for Meal Processing

Since optimizing the DTDC efficiency is the only technically feasible control option for these vents, no technology ranking is necessary.

2.5.3 Technology Ranking for Equipment Leaks

Since leak detection and correction is the only technically feasible control option for controlling VOC emissions from equipment leaks, no technology ranking is necessary.

2.5.4 Economic and energy Analysis

The economic and energy analysis is primarily used to identify total capital and annual costs associated with the implementation of the control technology and to identify any significant or unusual energy penalties. Total costs are computed in units of dollars per ton and are often used to document excessive economic impacts to the facility. The energy analysis is often put in terms of annual costs, as well.

However, if the source chooses to select the top-ranked feasible technology as BACT, it is not necessary to perform this economic and energy analysis. Since ADM Mankato is proposing to utilize the top ranked or only applicable control technology, a detailed economic and energy analysis is not presented.

2.6 Best Available Control Technology

As a result of this analysis the following control technologies are BACT for the Mankato Minnesota Soybean Processing Facility:

Source	Control Technology
Main Vent	Condensation/Mineral Oil Absorption
Meal Processing	Optimization of the Desolventizer Toaster
Equipment Leaks	Leak Detection and Correction

These technologies have been in place for ADM's Mankato soybean plant for a number of years. Since 1997 when the DT, dryer, and cooler units were replaced with a DTDC, hexane losses have been reduced significantly.

All references to emission limits for vegetable oil extraction have been found to be stated on a plant-wide hexane loss (gal/ton) basis. Published data on the limits that have been proposed for facilities or recommended in agency studies are shown in Table 2-4. These range from 0.5 to 0.94 gal/ton. Every reference cited refers to the significant variability of emissions in vegetable oil processing (variations in seed quality, subsequent impact of upsets, fugitive losses, etc.) Unit-specific emission limits are not feasible due to this significant process variability.

Table 2-4

Summary of Existing Emission Limits for Conventional Vegetable Oil Processing Plants

Facility or Document	Date of Document	Size (tons/day)	Emission Limit (gal/ton)
EPA CTG Document	1978	NA	0.94
Owensboro Grain BACT	1981	986	0.52
ADM Valdsota, GA Soybean Plant	1995	3000	0.52
ADM Lincoln, NE Soybean Plant	1995	4500	0.52
ADM North Kansas City, Soybean Plant	1997	NA	0.25
Central Soya Bellevue, OH Plant	2001	2160*	0.2*
Vegetable Oil MACT (existing, soybean plant)	2001	NA	0.2**
ADM Mankato Soybean Plant	Proposed	4500	0.15

NA = Not Applicable

* RACT/BACT/LAER Clearinghouse notes throughput for this facility as 90 tons/hour. Emission limit is a total gallons usage limit of 160,215 gallons/yr of hexane. Assuming operation is 8760 hours/yr, the most restrictive emissions limit on a gallon/ton basis is 0.2 gal/ton.

** Oilseed solvent loss factor (gal/ton) for an existing, soybean facility as listed in 40 CFR 63.2840. The solvent loss factor is not a limit but is an input into the compliance ratio calculation required to show compliance with the standard. However, if the n-hexane content of the extraction solvent is the same as the baseline performance data (64%) then the solvent loss factor is essentially a gallon/ton limit.

ADM proposes that the emission limit for the Mankato soybean plant be an overall hexane loss based on previous BACT determinations. The lowest published BACT limit identified was 0.2 gal/ton. This limit is approximately 80% lower than the limit referenced by EPA in its control technology guideline document (Ref. 2) more than 60% lower than the limits set in the mid-1990's. Based on these data, the proposed limit for the Mankato plant is 0.15 gal/ton hexane loss on a 12-month rolling average.

Upset conditions cause the oil extraction and solvent recovery equipment to be shut down until the source of the problem can be resolved. During the investigation into the problem, the extractor, DTDC, pump lines, and conveyor lines may be opened, drained, unplugged or repaired, and closed again. This may result in significant hexane loss, which is included in the annual gallons/ton loss data. Since upsets are unpredictable, they contribute greatly to the variability of the overall plant-wide hexane loss rate on a short-term basis.

Soybeans received vary in quality depending upon the amount of dirt, moisture, oil and protein contained in the bean; the differences can be substantial from day to day, week to week, and from year to year depending on the quality of the crop. These parameters affect the amount of hexane required to extract the oil. Variations in system operation such as seal closure, operator experience and maintenance efficiency also cause short term fluctuations in hexane loss rates. Because of the upsets, the variations in feedstock

quality, and the variations in system operations, the 12-month rolling average is requested.

The above described variations in raw material and process operation and their effects on short- and long-term solvent usage preclude the use of short-term emission averaging periods. The most accurate and feasible demonstration of total hexane disappearance is by the physical inventory method averaged over a reasonable time period to account for the above stated variations and fluctuations.

3.0 Emission Estimates

A summary of the plant-wide potential VOC emissions is presented in the VOC Calculations section of this permit application package. The emissions summary includes potential increases and total future potential emissions as a result of the expansion of the soybean processing facility.

4.0 Air Quality Analysis

An applicant for a PSD permit is required to conduct an air quality analysis of the ambient impacts associated with the construction and operation of the proposed new source or modification. The main purpose of the air quality analysis is to demonstrate that new emissions emitted from a proposed new source or modification, in conjunction with other applicable emissions from existing sources, will not cause or contribute to a violation of any applicable NAAQS or PSD increment (Ref. 1).

It is not possible to conduct a realistic ambient air quality analysis of the effects of the proposed increase in VOC emissions on ozone concentrations. The only EPA approved ozone model listed in Appendix A of the EPA Guideline on Air Quality Models (Ref. 7) is the Urban Airshed Model, which is an urban scale model not appropriate for evaluation of single source impacts. Blue Earth County, Minnesota, is currently either an attainment area or unclassified for ozone. Since the maximum hourly ozone value recorded on a hot summer day is only about one-half of the NAAQS and ambient NO_x concentrations are extremely low, it is highly unlikely that the proposed increase in VOC emissions will have any effect on attainment status. In addition, since there are no PSD increments for ozone, no increment compliance demonstration is needed.

5.0 Additional Impacts Analysis

The additional impacts analysis is an assessment of the impacts of air, ground, and water pollution on soils, vegetation, and visibility caused by any increase in emissions of any regulated pollutant from the modification under review and from associated growth. There are four parts of the additional impacts analysis: (1) growth, (2) ambient air quality impact analysis, (3) soils and vegetation analysis, and (4) visibility impairment.

5.1 Growth

The purpose of the growth analysis is to predict how much new growth is likely to occur to support the modification under review, and then to estimate the emissions that will result from that associated growth. The analysis projects the associated industrial, commercial, and residential source growth that will occur in the area due to the source.

An estimate of the emissions generated from the industrial, commercial, and residential source growth is then quantified.

Although ADM proposes to increase the permitted emissions for the facility, there will be no impact on population growth in the city of Mankato. The municipal services currently provided by the community are adequate. Therefore, the effect on air quality due to population growth is not expected to be a factor that needs to be considered.

This project will not result in significant commercial or industrial growth outside the facility. Thus, no significant air quality degradation due to associated commercial or industrial growth is expected.

5.2 Ambient Air Quality Impacts

The ambient air quality analysis projects the air quality that will exist in the area of the proposed modification during construction and after it begins operation. This analysis differs from the air quality analysis discussed in Section 4.0 in that it accounts for secondary impacts due to emissions caused by the projected growth associated with the modification. Since no significant air quality emissions are expected from associated growth with the modification, no ambient air quality impacts are expected from associated growth from the modification.

5.3 Soils and Vegetation Analysis

The direct effects of VOCs on vegetation have generally not been studied. However, VOCs contribute to the formation of ozone, a known toxic pollutant to plants. Ozone is formed when nitrogen oxides and VOCs react in the presence of sunlight.

VOC emissions from the ADM soybean facility will not significantly alter the maximum ground level ozone concentrations in the vicinity. As a result, no vegetation impacts directly attributable to VOC emissions are expected.

5.4 Visibility Impairment Analysis

An assessment of the possible visibility impairment due to increased emissions from the modification must be analyzed as part of the PSD permitting process. No visible impacts are expected from the modification because VOCs do not affect plume opacity. This is illustrated by noting that there is no input parameter for VOC emission rates in EPA's Workbook for Plume Visual Impact Screening and Analysis (Ref. 7).

6.0 REFERENCES

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