

**AIR EMISSION PERMIT NO. 10500053-002**

**IS ISSUED TO**

**Minnesota Soybean Processors - Brewster**

Minnesota Soybean Processors - Brewster  
Corner 200th Street & Zeh Avenue  
Brewster, Nobles County, MN 56119

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	Feb. 27, 2001
Major Amendment	May 12, 2003

This permit authorizes the Permittee to operate and construct 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 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

**Issue Date:** 11/10/2003

**Expiration:** 12/19/2007

All Title I Conditions do not expire.

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Ann M. Foss  
Major Facilities Section Manager  
Majors and Remediation 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
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Outside Metro Area	1-800-657-3864
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TTY	(651) 282-5332
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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 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:**

From the initial Permit (-001), Minnesota Soybean Processors (Permittee) was authorized to construct and operate a 3,000 ton per day soybean processing plant in the city of Brewster, Nobles County, Minnesota.

The facility at Brewster will receive raw soybeans and process them, extracting crude soybean oil from the beans. By-products of the oil processing are soy meal and hulls, which are sold for animal feed.

Soybeans will be delivered from the local farmers or grain storage facilities by semi-trailer truck. The soybeans are off-loaded and stored in bins having a storage capacity of 2.3 million bushels. From storage the beans are sent to a screening and cleaning area in the preparation building where trash accompanying the beans is removed. From here the beans are routed to the dehulling process. The hull of the bean will be ground. The ground soybean hulls are usually formed into pellets and sold as animal feed. The meat of the bean is cracked into larger chunks, conditioned (heated) and then pressed into flakes. These materials are then sent to the extraction building.

The flakes are washed in the extraction building with a solvent, commercial hexane, to strip the oil from the flakes. The mixture of solids and solvent are separated. The solids, which are still laden with hexane, are sent to a meal desolventizer where they are heated and the solvent is volatilized. The solvent-free solids are then cooled, ground and stored as meal. This meal is sold as animal feed. The liquid removed from the solids consists of hexane, soybean oil, and water and is called the miscella.

The miscella is separated into its components using distillation. The hexane is reused, the water disposed of and the oil, termed "crude oil," is stored. The crude oil will be shipped off-site, to be refined into various products.

The meal and oil products will be shipped from the facility by rail and truck.

Besides receiving, preparation and extraction there will be a weigh station, offices and a lab, a steam generation plant, maintenance, and warehousing. The steam plant will fire, primarily, natural gas.

## **AMENDMENT DESCRIPTION:**

The permit action allows the operation of a major air emissions source, as defined by the Federal New Source Review Prevention of Significant Deterioration (PSD) program. 40 CFR § 52.21. The permit action is not a modification under the PSD program, but does require a state major amendment. Minn. R. 7007.1500. Therefore, the permit has been placed on public notice. This permit amendment authorizes the Permittee to increase the PM and PM<sub>10</sub> limits for the two permitted boilers. This increase corrects the existing permit limits to reflect the previously approved limits in the total facility permit application. The fuel for the combustion units will

continue to be natural gas and very low sulfur distillate oil (less than 0.05 percent sulfur). Several additional design modifications are also authorized.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**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**

<b>What to do</b>	<b>Why to do it</b>
<b>OPERATIONAL REQUIREMENTS</b>	hdr
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)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
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
Fugitive Emissions Control Plan: The Permittee shall develop and comply with a Fugitive Emissions Control Plan. 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 Emissions Control Plan, then the Permittee may be required by the Commissioner to amend the Control Plan and/or install and operate particulate matter ambient monitors.	Minn. R. 7007.0800, subp. 2
The Permittee shall maintain a designated contact, on-site, for the neighbors to telephone with concerns of any dust. This could be related to dust arising from trucks, either entering or leaving the facility premises as well as from the handling of the outside soybean storage. Upon such a complaint, the facility will investigate the complaint. Valid dust complaints are to be addressed by reasonable and appropriate mitigation measures. The Permittee shall record all complaints, investigation findings, and mitigation measures taken. A continued pattern of dust complaints may trigger a new PM10 modeling analysis.	Minn. R. 7007.0800, subp. 2
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
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.	Minn. R. 7017.2025
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
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
Rain caps are not allowed on any stacks facility-wide.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(k) to demonstrate source impact analysis for attainment and increment standards.
<b>NOTIFICATION REQUIREMENTS</b>	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.	Minn. R. 7019.1000, subp. 3
At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

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Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.  At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
<b>MONITORING REQUIREMENTS</b>	hdr
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)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
<b>RECORDKEEPING REQUIREMENTS</b>	hdr
Equipment List: The Permittee shall maintain a written list of all emission units on site that are not insignificant activities. The list shall include the type of equipment; identifying number; date of installation, modification, and/or reconstruction; and identification of any applicable Standards of Performance for New Stationary Sources (40 CFR pt. 60) and/or National Emission Standards for Hazardous Air Pollutants (40 CFR pt. 63).	Minn. R. 7007.0800, subp. 5
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
<b>REPORTING REQUIREMENTS</b>	hdr
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due 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
<b>PERFORMANCE TESTING REQUIREMENTS</b>	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

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
<p>General Performance Test Requirements:</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>	Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2
Testing Frequency Plan: due 60 days after completion of all permit specified Initial Performance Tests. The plan will address all of the tested units. The plan shall specify a testing frequency using the test data and MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	Minn. R. 7017.2020, subp. 1
NESHAP REQUIREMENTS	hdr
The Permittee shall comply with the Maximum Achievable Control Technology (MACT) Standard for Solvent Extraction for Vegetable Oil Production.	40 CFR pt. 63
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



# TABLE A: LIMITS AND OTHER REQUIREMENTS

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

## Subject Item: GP 001 Solvent Extraction (n-Hexane) Losses

What to do	Why to do it
The units in GP 001 are subject to requirements set under the preconstruction program required by 40 CFR pt. 63, Subpart B. As such, the units are also subject to any applicable requirements in 40 CFR pt. 63, Subpart A, General Conditions.	40 CFR Section 63.43
EMISSION LIMITS	hdr
Compliance Ratio: less than or equal to 1.00.  The Compliance Ratio = (fhap * actual solvent loss)/(0.64* allowable solvent loss)  where, fhap = the weighted average HAP content of solvent purchased during the previous 12 operating months (volume fraction); 0.64 = average volume fraction of HAP in solvent (dimensionless); Actual solvent loss = quantity of actual solvent loss during previous 12 operating months (gallons); Allowable solvent loss = quantity of soybeans processed during the previous 12 operating months (tons) multiplied by 0.2 (gallons/ton)	40 CFR Section 63.2840
GENERAL REQUIREMENTS	hdr
Calculations - Compliance Ratio: By the end of each calendar month following an operating month, calculate the compliance ratio for the previous 12 operating months. This requirement does not apply during the initial startup period (i.e., the first 6 calendar months following initial startup). The first compliance ratio will be determined following the first 12 operating months after initial startup (or the 19th operating month after initial plant startup).  An operating month is any calendar month with at least one normal operating period. It does not include the initial startup period or malfunction period. A normal operating period is defined in the proposed 40 CFR 63.2872.	40 CFR Section 63.2840
By the end of each calendar month following an operating month, calculate the actual extraction solvent loss during the previous operating month. The monthly actual extraction solvent loss is to be determined as follows: Actual Solvent Loss = SOLVb - SOLVe + SOLVr +/- SOLVa  where, SOLVb = gallons of solvent in the inventory at the beginning of the normal operating month. SOLVe = gallons of solvent in the inventory at the end of the normal operating month. SOLVr = gallons of solvent received between the beginning and ending inventory dates of the normal operating month. This includes purchased hexane and hexane recovered from imported oil that is added to the extraction plant inventory. SOLVa = gallons of solvent added or removed from the extraction solvent inventory during the normal operating month. For SSM Solvent loss events, the excluded solvent loss must be documented for the event and an estimated associated solvent loss must be provided.	40 CFR Section 63.2853
Calculations - 12-month Rolling Sum: Calculate the 12-month rolling sum actual solvent loss by summing the 12 most recent actual monthly solvent losses.	40 CFR Section 63.2853
Calculations - Monthly Weighted 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 = $\frac{\sum_{i=1}^n (\text{Received}_i * \text{Content}_i)}{\text{Total Received of Extraction Solvent (volume fraction)}}$  where, Received <sub>i</sub> = gallons of extraction solvent received in delivery i; Content <sub>i</sub> = volume fraction of HAP in extraction solvent delivery i; n = number of extraction solvent deliveries since the end of the previous operating month. Total received = total gallons of extraction solvent received since the end of the previous operating month.	40 CFR Section 63.2854

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

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<p>Calculations - 12-month Weighted Average of HAP Content of Solvent Received:</p> $\frac{\text{12-Month Weighted Average of HAP Content in Solvent Received (volume fraction)}}{12} = \frac{\sum (\text{Received}_i * \text{Content}_i)}{\text{Total Received}}$	40 CFR Section 63.2854
<p>Calculations - Oilseed Quantity Processed: By the end of each calendar month following an operating month, calculate the monthly quantity of each oilseed processed by using the following equation:</p> <p>Monthly Quantity of Oilseed Processed = The sum of (SEEDb - SEEDe + SEEDr +/- SEEDa)</p> <p>where,  SEEDb = tons of soybeans in the inventory at the beginning of the normal operating month;  SEEDe = tons of soybeans in the inventory at the end of the normal operating month;  SEEDr = tons of soybeans received during the normal operating month;  SEEDa = tons of soybeans added or removed from the oilseed inventory during the normal operating month.</p>	40 CFR Section 63.2855
<p>Calculations - 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>	40 CFR Section 63.2855
<p>Plan for Demonstrating Compliance: Develop and implement a written Plan for Demonstrating Compliance. This Plan will include:</p> <ol style="list-style-type: none"> <li>1) a detailed description of the procedures that will be followed to minimize solvent loss, at all times, including normal, startup/shutdown/malfunction (SSM), and non-operating conditions; and,</li> <li>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.</li> </ol>	40 CFR Section 63.2862(b)
<p>Startup, Shutdown, and Malfunction Plan: Develop and implement a written Startup, Shutdown, and Malfunction (SSM) plan. At a minimum, this plan is to include:</p> <ol style="list-style-type: none"> <li>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,</li> <li>2) a specified program of corrective action for malfunctioning process and air pollution control equipment; and,</li> <li>3) specified procedures for estimating solvent loss during each such SSM event.</li> </ol>	40 CFR Section 63.2862(b)
<b>RECORDKEEPING REQUIREMENTS</b>	hdr
<p>By the end of each calendar month following an operating month, record the compliance ratio for each 12 month operating period.</p>	40 CFR Section 63.2862(d)
<p>Upon delivery, record the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. For purchased solvent, a Certificate of Analysis provided by the solvent may be used to determine the average HAP content of solvent received. For recovered solvent from vegetable oil purchased from off-site locations, reasonable and sound methods for determining the HAP content shall be used.</p>	40 CFR Section 63.2862(c)
<p>Recording - Solvents: By the end of each calendar month following an operating month, record the following information for the previous operating month. These records shall include the sum of all hexane solvents. At a minimum, these records are to include:</p> <ol style="list-style-type: none"> <li>1) beginning and end dates defining the operating month;</li> <li>2) extraction solvent inventories (gallons) at the beginning and end of the operating month;</li> <li>3) quantity of all extraction solvent (gallons) received, purchased, and off-site recovered, during the operating month;</li> <li>4) documentation of the reason for and quantity estimation of all extraction solvent inventory adjustments, additions or subtractions;</li> <li>5) total solvent loss during the operating month; and,</li> <li>6) 12-month rolling sum of the extraction solvent lost by the process (gallons).</li> </ol>	40 CFR Section 63.2862(b)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

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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) quantity of extraction solvent purchased and delivered during the operating month; 2) concentration of each HAP exceeding 1 percent by volume in each delivery of purchased solvent; 3) average HAP content of extraction solvent received during the operating month; and, 4) weighted average HAP content of extraction solvent received during the previous 12 operating months. (This is not required during the initial startup period.)	40 CFR Section 63.2862(c)
Recording - Processed Soybean Weight: Record the tons of soybeans processed for the operating month. At a minimum, these records are to include: 1) beginning and end dates defining the operating month; 2) inventory of each oilseed (tons) at the beginning and end of the operating month; 3) quantity of each oilseed received at the process (tons) during the operating month; 4) documentation as to reason for adjustment and estimation of the quantity of the adjustment for all oilseed inventory adjustments (additions or subtractions); 5) quantity of each oilseed processed (tons) during the operating month; and, 6) 12-month rolling sum of each oilseed processed (tons). (This is not required during the initial startup period.)	40 CFR Section 63.2862(c)
Record any process modifications resulting in changes to the solvent working capacity.	40 CFR Section 63.2853(a)
REPORTING REQUIREMENTS	hdr
Submit notifications before, during, and after construction according to the schedule listed in 40 CFR Section 63.9, but not sooner than the promulgation date of 40 CFR pt. 63, Subpart GGGG. The notifications are subject to the exceptions noted in 40 CFR Section 63.2860(b)(1). The application for approval of construction must include a brief description of the source including the types of listed oilseed processed, nominal operating capacity, and type of desolventizer used. The notification of actual startup shall state whether the Permittee has elected to operate under an initial startup period subject to 40 CFR Section 63.2850(c)(2) and provide an estimate and justification for the anticipated duration of the initial startup period.	40 CFR Section 63.2860
Notification of Deviation Report. A deviation notification report must be submitted, for each operating month, in which the compliance ratio exceeds 1.00. The report is to be submitted by the end of the month following the calendar month in which the deviation occurred. This report is to include the compliance ratio comprising the deviation.	40 CFR Section 63.2861(b)
Periodic SSM Report: By the end of the calendar month, submit a periodic SSM report for the previous month during which the facility has been operated under an initial startup period or a malfunction period. This SSM report is to include an estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.	40 CFR Section 63.2861(c)
Immediate Startup, Shutdown, and Malfunction Reports: Within 2 working days after commencing actions inconsistent with the SSM plan, submit an Immediate Startup, Shutdown, and Malfunction Report consisting of a telephone call or facsimile transmission followed by a letter within 7 working days of the event. This SSM report is to include an estimate of the solvent loss during the SSM event with supporting documentation.	40 CFR Section 63.2861(d)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: GP 002 Fabric Filter Equipment**

<b>What to do</b>	<b>Why to do it</b>
OPERATING REQUIREMENTS  (All requirements apply to each control equipment unit.)	hdr
The Permittee shall operate and maintain the control equipment any time that the process equipment that it controls is in operation.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); Minn. R. 7007.3000
Visible Emissions/Pressure Drop Monitoring: Once each day of operation of any GP 002 fabric filter, the Permittee shall check the outlet of each operating fabric filter during daylight hours for any visible emissions (VEs). If inclement weather prohibits a VE check, the Permittee shall observe and record the pressure drop across each operating fabric filter.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); Minn. R. 7007.0800, subp. 4
Install and operate a pressure differential monitoring gauge for determining the pressure drop across the baghouse. The pressure drop shall not exceed 6.0 inches of water column nor be less than 1.0 inch of water column.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); Minn. R. 7007.0800, subp. 4
The Permittee shall take corrective actions, as soon as possible, as based on the operation and maintenance plan to eliminate any visible emissions and/or any pressure drops outside the permitted range specified under this subject item, from any fabric filters.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); Minn. R. 7007.0800, subp. 2
Operate and maintain each control equipment such that it achieves a removal efficiency of each fabric filter for total PM: greater than or equal to 99.0 percent control efficiency.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); Minn. R. 7007.3000
Operate and maintain each control equipment such that it achieves a removal efficiency of each fabric filter for PM10: greater than or equal to 99.0 percent control efficiency.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); Minn. R. 7007.3000
Inspect each of the fabric filters quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subps. 2, 5, and 14
Inspect each of the fabric filters quarterly, or as required by manufacturing specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subps. 2, 5, and 14
RECORDING REQUIREMENTS	hdr
Recordkeeping of daily monitoring: the Permittee shall keep a daily record, that contains, at a minimum, the following information for each fabric filter unit:  1) Printed name of observer; 2) Signature of observer; 3) Date and time of observation; 4) Are there any visible emissions observed from the fabric filters? ("yes" or "no") 5) Stack/Vent ID number for each "yes"; 6) Description of investigation and corrective actions completed for each "yes"; 7) Weather conditions (temperature, cloud cover, wind, precipitation). or 1) Pressure drop.	Minn. R. 7007.0800, subp. 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 and/or any pressure drops outside the permitted range specified under this subject item, from any fabric filters.  The Permittee shall keep a record, on-site, of the corrective actions taken.	Minn. R. 7007.0800, subp. 5
Monitor and record pressure drop, for each fabric filter, once every seven days of operation.	Minn. R. 7007.0800, subps. 4 & 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: GP 003 VOC Losses**

What to do		Why to do it
OPERATING REQUIREMENTS		hdr
(All requirements apply to the sum of all emission units.)		
Volatile Organic Compounds: less than or equal to 619 tons/year using 12-month Rolling Sum for VOC solvent loss (after first eighteen months of operation).		Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
During the first eighteen months of operation, the total sum VOC solvent loss shall be less than the following values as of any given month:		Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Month	Sum VOC Loss (tons)	Month Sum VOC Loss (tons)
1	387	13 1,005
2	646	14 928
3	688	15 851
4	732	16 773
5	776	17 696
6	820	18 619
7	864	
8	908	
9	951	
10	995	
11	1,039	
12	1,083	
13		
RECORDKEEPING		hdr
By the end of each calendar month following an operating month, calculate the quantity of actual VOC solvent loss for the previous 12 months by using the monthly and 12 month solvent loss methods in GP 001.		Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); Minn. R. 7007.0800, subps. 4 & 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: GP 004 Hull Grind; Ground Hull Bin; Pellet Tank; Blending Tank; Clay/Earth Bleach**

<b>What to do</b>	<b>Why to do it</b>
EMISSION LIMITS  (All limits apply individually to each emission unit.)	hdr
Total Particulate Matter: less than or equal to 0.005 grains/dry standard cubic foot using 1-Hour Average for any process emissions from each stack vent in GP 004.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot using 3-hour Average for any process emissions from each stack vent in GP 004.	Title Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
Fabric filters for each individual stack shall be operated at all times when the emission unit is in operation. See GP 002 for Fabric Filter requirements.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
PERFORMANCE TESTS	hdr
Initial Performance Test: due 180 days after Initial Startup to measure PM10 for both SV 005 and SV 006 within GP 004.  For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject item "Total Facility."	Minn. R. 7007.0800, subp. 4

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: GP 005 Cyclone Units**

<b>What to do</b>	<b>Why to do it</b>
<b>EMISSION LIMITS</b>	hdr
(All limits apply individually to each emission unit.)	
Total Particulate Matter: less than or equal to 0.026 grains/dry standard cubic foot using 1-Hour Average for any process emissions from each stack vent in GP 005.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); also meets the requirements of Minn. R. 7011.0715, subp. 1A
Particulate Matter < 10 micron: less than or equal to 0.013 grains/dry standard cubic foot using 3-hour Average for any process emissions from each stack in GP 005.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
<b>OPERATING REQUIREMENTS</b>	hdr
Cyclones for each individual stack shall be operated at all times whenever the emission unit vented to that stack is in operation.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Install and maintain a monitoring device in each cyclone that will continuously monitor for plugging of the cyclone. The monitoring devices will be connected to audible and visible alarms to indicate plugging or failure of the probe.	Title I Condition: BACT Limit as per 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 14
The monitoring devices and alarm system shall be operated whenever the corresponding cyclone is operating.	Minn. R. 7007.0800, subps. 4 & 5
Inspect each cyclone quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subps. 2, 5, and 14
Inspect each cyclone quarterly, or as required by manufacturing specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subps. 2, 5, and 14
<b>PERFORMANCE TESTS</b>	hdr
Initial Performance Test: due 180 days after Initial Startup to measure PM10 for each stack vent (SV 004, SV 007, SV 010, SV 011, SV 013, SV 014, SV 015, SV 016, SV 022) within Group 5.	Minn. R. 7007.0800, subp. 4
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject item "Total Facility."	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: GP 006 Storage Tanks**

<b>What to do</b>	<b>Why to do it</b>
Keep readily accessible records showing the dimension of each individual storage vessel and an analysis showing the capacity of each individual storage vessel.	40 CFR Section 60.116b(b)



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: GP 007 Boilers**

<b>What to do</b>	<b>Why to do it</b>
<b>EMISSION LIMITS</b>	hdr
(All limits apply to each emission unit.)	
Nitrogen Oxides: less than or equal to 0.050 lbs/million Btu heat input when combusting natural gas, using 3-hour average.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Nitrogen Oxides: less than or equal to 0.1250 lbs/million Btu heat input when combusting distillate fuel oil, using 3-hour Average.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Volatile Organic Compounds: less than or equal to 0.00524 lbs/million Btu heat input when combusting natural gas.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Volatile Organic Compounds: less than or equal to 0.00143 lbs/million Btu heat input when combusting distillate fuel oil.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Total Particulate Matter: less than or equal to 0.00745 lbs/million Btu heat input when combusting natural gas.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Total Particulate Matter: less than or equal to 0.0236 lbs/million Btu heat input when combusting distillate fuel oil.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Particulate Matter < 10 micron: less than or equal to 0.00745 lbs/million Btu heat input when combusting natural gas.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Particulate Matter < 10 micron: less than or equal to 0.0236 lbs/million Btu heat input when combusting distillate oil.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Sulfur Dioxide: less than or equal to 0.0507 lbs/million Btu heat input	Title I Condition: Limit to avoid classification as major for SO <sub>2</sub> under 40 CFR Section 52.21; also meets the requirements of 40 CFR Section 60.42c(d)
Opacity: less than or equal to 20 percent except for one 6-minute period per hour of not more than 27 percent opacity.	40 CFR Section 60.43c(c)
<b>OPERATING REQUIREMENTS</b>	hdr
Fuel Usage: Limited to pipeline natural gas and low sulfur distillate oil. (Maximum sulfur content 0.05% by weight for distillate oil.)	Title I Condition: Limit to avoid classification as major for SO <sub>2</sub> under 40 CFR Section 52.21
Fuel Usage: less than or equal to 6080000 gallons/year using 12-month Rolling Sum of #2 fuel oil to be consumed by both Boilers #1 (EU 026) and #2 (EU 027), based on a calculated 12-month rolling sum.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j) (for NO <sub>x</sub> ); Title I Condition: Limit to avoid classification as major under 40 CFR Section 52.21 (for SO <sub>2</sub> )
Except during start-up and shutdown, operate CE 027 at all times that EU 026 is operating and operate CE 028 at all times that EU 027 is operating.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
<b>MONITORING REQUIREMENTS</b>	hdr
The Permittee shall obtain the supplier certifications for each delivery of distillate oil which specify the sulfur content in percent by weight.	Minn. R. 7007.0800, subp. 4
Record the quantity #2 fuel oil consumed for Boilers #1 and #2 (in gallons) on a monthly basis. Keep records on site.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j) (for NO <sub>x</sub> ); Title I Condition: Limit to avoid classification as major under 40 CFR Section 52.21 (for SO <sub>2</sub> )
<b>SUBMITTAL AND REPORTS</b>	hdr
Fuel supplier certifications shall include: i) the name of the oil supplier; and, ii) a statement from the oil supplier that the oil sulfur content is less than or equal to 0.05 percent by weight for distillate oil.	Title I Condition: BACT Limit as per 40 CFR Section 52.21; also meets the requirements of 40 CFR Section 60.48c(f)
Record and maintain records of the amounts of each fuel combusted during each month.	40 CFR Section 60.48c(g); Feb. 20, 1992 EPA Memo
<b>PERFORMANCE TESTS</b>	hdr
Initial Performance Test: due 180 days after Initial Startup for each individual unit (EU 026 and EU 027), but not to exceed 60 days after achieving the maximum production rate at which the affected facility will be operated to measure opacity.  For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject Item "Total Facility."	40 CFR Section 60.45c(a); Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup for each individual unit (EU 026 and EU 027) to measure NO <sub>x</sub> .  For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject Item "Total Facility."	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: GP 008 Loadout Units**

<b>What to do</b>	<b>Why to do it</b>
EMISSION LIMITS  (All limits apply to each emission unit.)	hdr
Total Particulate Matter: less than or equal to 0.003 grains/dry standard cubic foot using 1-Hour Average for any process emissions from each stack vent in GP 008.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); also meets the requirements of 7011.1005, subp. 3(D)
Particulate Matter < 10 micron: less than or equal to 0.003 grains/dry standard cubic foot using 3-hour Average for any process emissions from each stack vent in GP 008.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 10 percent	Minn. R. 7011.1005, subp. 3(D)
OPERATING REQUIREMENTS	hdr
Fabric filters for each individual stack shall be operated at all times when the emission unit is in operation. See GP 002 for Fabric Filter requirements.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Clean up commodities spilled on facility property, as required, to minimize emissions to a level required with RACT.	Minn. R. 7011.1005, subp. 3(D)
Maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed.	Minn. R. 7011.1005, subp. 3(D)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: EU 001 Receiving**

<b>What to do</b>	<b>Why to do it</b>
<b>EMISSION LIMITS</b>	hdr
Total Particulate Matter: less than or equal to 0.003 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); also meets the requirements of 40 CFR 60.302(b)(1) and Minn. R. 7011.1005, subp. 2
Particulate Matter < 10 micron: less than or equal to 0.003 grains/dry standard cubic foot using 3-hour Average .	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 0 percent for any process emissions.	40 CFR Section 60.302(b)(2); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 5 percent for fugitive emissions from any grain unloading station	40 CFR Section 60.302(c)(1); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent for any fugitive emissions from grain handling operations	40 CFR Section 60.302(c)(2); Minn. R. 7011.1005, subp. 2
<b>OPERATING REQUIREMENTS</b>	hdr
Clean up commodities spilled on facility property, as required, to minimize emissions to a level required with RACT	Minn. R. 7011.1005, subp. 1
Maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed. See GP 002 for Fabric Filter requirements.	Minn. R. 7011.1005, subp. 1
Maintain total enclosure around the grain truck for the entire grain receiving by complete closure of all doors on the grain receiving building.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
<b>RECORDING REQUIREMENTS</b>	hdr
<b>PERFORMANCE TESTS</b>	hdr
Initial Performance Test: due 180 days after Initial Startup to measure PM (PM to include organic condensables).	Title I Condition: BACT Limit as per 40 CFR 52.21(j); 40 CFR Section 60.303(b); 40 CFR Section 60.8(a); Minn. R. 7011.1005, subp. 2
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject Item "Total Facility."	
Initial Performance Test: due 180 days after Startup to measure Opacity.	40 CFR Section 60.303(b); 40 CFR Section 60.8(a); Minn. R. 7011.1005, subp. 2
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject item "Total Facility."	
Initial Performance Test: due 180 days after Initial Startup to measure PM10.	Minn. R. 7007.0800, subp. 4
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject item "Total Facility."	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: EU 002 Grain Elevator Transfer**

<b>What to do</b>	<b>Why to do it</b>
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.005 grains/dry standard cubic foot using 1-Hour Average	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); also meets the requirements of 40 CFR 60.302(b)(1) and Minn. R. 7011.1005, subp. 2
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot using 3-hour Average	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 0 percent from any process emissions	40 CFR Section 60.302(b)(2); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent for any fugitive emissions from grain handling operations	40 CFR Section 60.302(c)(2); Minn. R. 7011.1005, subp. 2
OPERATING REQUIREMENTS	hdr
Clean up commodities spilled on facility property, as required, to minimize emissions to a level required with RACT	Minn. R. 7011.1005, subp. 1
Maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed. See GP 002 for Fabric Filter requirements.	Minn. R. 7011.1005, subp. 1
REPORTING REQUIREMENTS	hdr
PERFORMANCE TESTS	hdr
Initial Performance Test: due 180 days after Initial Startup to measure PM (PM to include organic condensibles).	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); 40 CFR Section 60.303(b); 40 CFR Section 60.8(a); Minn. R. 7011.1005, subp. 2
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject Item "Total Facility."	
Initial Performance Test: due 180 days after Initial Startup to measure Opacity.	40 CFR Section 60.303(b); 40 CFR Section 60.8(a); Minn. R. 7011.1005, subp. 2
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject item "Total Facility."	
Initial Performance Test: due 180 days after Initial Startup to measure PM10.	Minn. R. 7007.0800, subp. 4
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject item "Total Facility."	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: EU 003 Bean Cleaning**

<b>What to do</b>	<b>Why to do it</b>
<b>EMISSION LIMITS</b>	hdr
Total Particulate Matter: less than or equal to 0.003 grains/dry standard cubic foot using 1-Hour Average .	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Particulate Matter < 10 micron: less than or equal to 0.003 grains/dry standard cubic foot .	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
<b>OPERATING REQUIREMENTS</b>	hdr
Fabric filters for each individual stack shall be operated at all times when the emission unit is in operation. See GP 002 for Fabric Filter requirements.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Cyclones for each individual stack shall be operated at all times whenever the emission unit vented to that stack is in operation.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Install and maintain a monitoring device in each cyclone that will continuously monitor for plugging of the cyclone. The monitoring devices will be connected to audible and visible alarms to indicate plugging or failure of the probe.	Title I Condition: BACT Limit as per 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 14
The monitoring devices and alarm system shall be operated whenever the corresponding cyclone is operating.	Minn. R. 7007.0800, subps. 4 & 5
Inspect each cyclone quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subps. 2, 5, and 14
Inspect each cyclone quarterly, or as required by manufacturing specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subps. 2, 5, and 14
<b>PERFORMANCE TESTS</b>	hdr
Initial Performance Test: due 180 days after Initial Startup to measure PM10 for the stack vent.	Minn. R. 7007.0800, subp. 4
For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, subject item "Total Facility."	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: EU 020 Meal Grinding**

<b>What to do</b>	<b>Why to do it</b>
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.003 grains/dry standard cubic foot using 1-Hour Average .	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Particulate Matter < 10 micron: less than or equal to 0.003 grains/dry standard cubic foot .	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
Fabric filters for each individual stack shall be operated at all times when the emission unit is in operation. See GP 002 for Fabric Filter requirements	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed. See GP 002 for Fabric Filter requirements.	Minn. R. 7011.1005, subp. 1

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: EU 021 Meal Bin**

<b>What to do</b>	<b>Why to do it</b>
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.005 grains/actual cubic foot using 1-Hour Average	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j); also meets the requirements of 7011.1005, subp. 3(D)
Particulate Matter < 10 micron: less than or equal to 0.005 grains/dry standard cubic foot using 3-hour Average	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Opacity: less than or equal to 10 percent	Minn. R. 7011.1005, subp. 3(D)
OPERATING REQUIRMENTS	hdr
Fabric filters for each individual stack shall be operated at all times when the emission unit is in operation.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Clean up commodities spilled on facility property, as required, to minimize emissions to a level required with RACT.	Minn. R. 7011.1005, subp. 1
Maintain air pollution control equipment in proper operating condition and utilize the air pollution control systems as designed. See GP 002 for Fabric Filter requirements.	Minn. R. 7011.1005, subp. 1

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: EU 028 Fire Pump Engine**

<b>What to do</b>	<b>Why to do it</b>
EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (0.29 lbs/million Btu per equipment design).	Minn. R. 7011.2300, subp. 1
OPERATING CONDITIONS	hdr
Operating Hours: less than or equal to 500 hours/year	Title I Condition: Limit to avoid classification as major for SO <sub>2</sub> under 40 CFR Section 52.21
Fuel Type: No. 2 distillate fuel only, by design.	Minn. R. 7005.0100, subp. 35a
Operation: emergency usage, training, or testing purposes only.	Minn. R. 7007.0800, subp. 2
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping -- Hours of Operation: The Permittee shall maintain documentation on-site for the hours of operation that the unit is to be used for emergency, training, or testing purposes.	Minn. R. 7007.0800, subps. 4 and 5
Recordkeeping -- Fuel Type: The Permittee shall keep records of the type of fuel burned in EU 028 when in operation.	Minn. R. 7007.0800, subps. 4 and 5
Fuel Supplier Certification: Obtain and maintain a fuel supplier certification for each shipment of No. 2 distillate oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subps. 4 and 5



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: EU 031 Genset (Emergency)**

<b>What to do</b>	<b>Why to do it</b>
<b>EMISSION LIMITS</b>	hdr
Opacity: less than or equal to 20 percent	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (0.29 lbs/million Btu per equipment design).	Minn. R. 7011.2300, subp. 1
<b>OPERATING CONDITIONS</b>	hdr
Fuel Type: No. 2 distillate fuel only, by design.	Minn. R. 7005.0100, subp. 35a
Operation: emergency usage, training, or testing purposes only.	Minn. R. 7007.0800, subp. 2
Alternative Operating Scenario: Other than for limited testing/training purposes, the emergency generator is only allowed to operate for providing power to the compressed air system, the cooling water pumps, and the emergency lighting during the event of a power outage.	Title I Condition: BACT limit as per 40 CFR Section 52.21(j)
<b>RECORDKEEPING REQUIREMENTS</b>	hdr
Recordkeeping -- Hours of Operation: The Permittee shall maintain documentation on-site that the unit is to be used for emergency (including training and testing) purposes only that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to hours per year.	Minn. R. 7007.0800, subps. 4 and 5
Recordkeeping -- Fuel Type: The Permittee shall keep records of the type of fuel burned in EU 031 when in operation.	Minn. R. 7007.0800, subps. 4 and 5
Fuel Supplier Certification: Obtain and maintain a fuel supplier certification for each shipment of No. 2 distillate oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subps. 4 and 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

**Subject Item: FS 003 Soybean Pile**

<b>What to do</b>	<b>Why to do it</b>
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
Operation: During soybean piling, the free fall height between conveyance drop point and top of soybean pile shall not exceed 5 feet.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
All paved roads and areas shall be cleaned to minimize the discharge to the atmosphere of fugitive particulate emissions. Such cleaning shall be accomplished in a manner which minimizes the resuspension of particulate matter.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)
Clean up all bean/bean material spilled on roads or access areas, as soon as practicable, using methods that minimize the amount of dust suspended.	Title I Condition: BACT Limit as per 40 CFR Section 52.21(j)

## TABLE B: SUBMITTALS

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster  
Permit Number: 10500053 - 002

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**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

What to send	When to send	Portion of Facility Affected
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU001, EU002, GP007
Notification of the Date Construction Began	due 30 days after Start Of Construction	EU001, EU002, GP007
Submittal	due 610 days after Initial Startup Certification of Compliance Status. This notification shall include: 1) name and address of owner; 2) physical address of facility; 3) type of oilseed type processed; 4) each HAP, present in purchased solvent, in concentrations greater than 1 percent by volume, during the initial compliance determination; 5) statement designating either being a major or area source; 6) compliance certification of Plan for Demonstrating Compliance and SSM as complete and available, procedures in Plan for Demonstrating Compliance are being followed, and compliance ratio is less than or equal to 1.00.	GP001
Testing Frequency Plan	due 60 days after Initial Performance Test for both EU 026 and EU 027. The plan shall specify a testing frequency to measure opacity and NOx using the test data and MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written MPCA approval per Minn. R. 7017.2020, subp. 1.	GP007
Testing Frequency Plan	due 60 days after Initial Performance Test for each Stack Vent (SV 004, SV 007, SV 010, SV 011, SV 013, SV 014, SV 015, SV 016, SV 022) within Group 5. The plan shall specify a testing frequency to measure PM10 using the test data and MPCA guidance for each Group 5 Stack Vent. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written MPCA approval per Minn. R. 7017.2020, subp. 1.	GP005
Testing Frequency Plan	due 60 days after Initial Performance Test for each SV 005 and SV 006 within Group 4. The plan shall specify a testing frequency to measure PM10 using the test data and MPCA guidance for each stack vent. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written MPCA approval per Minn. R. 7017.2020, subp. 1.	GP004
Testing Frequency Plan	due 60 days after Initial Performance Test for the Stack Vent. The plan shall specify a testing frequency to measure PM10 using the test data and MPCA guidance for the Stack Vent. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written MPCA approval per Minn. R. 7017.2020, subp. 1.	EU003
Testing Frequency Plan	due 60 days after Initial Performance Test. The plan shall specify a testing frequency to measure PM, PM10, and Opacity using the test data and MPCA guidance for the stack vent. Future performance tests based on year (12-month), 36-month, and 60-month intervals, or as applicable, shall be required upon written MPCA approval per Minn. R. 7017.2020, subp. 1.	EU002

**TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

Testing Frequency Plan	due 60 days after Initial Performance Test. The plan shall specify a testing frequency to measure PM, PM10, and Opacity using the test data and MPCA guidance for the stack/vent. Future performance tests based on year (12-month), 36-month, and 60-month intervals, or as applicable, shall be required upon written MPCA approval per Minn. R. 7017.2020, subp. 1.	EU001
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**TABLE B: RECURRENT SUBMITTALS**

11/10/03

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053 - 002

What to send	When to send	Portion of Facility Affected
Quarterly Report	due 30 days after end of each calendar quarter following Quarterly Report. Keep records and submit quarterly reports. Each quarterly report shall be postmarked by the 30th day following the end of the reporting period. The quarterly report shall include both 1) the calendar dates covered in the reporting period, 2) a copy of all certifications of fuel deliveries for fuel oil burned during the quarter, and 3) a statement certifying that the records of fuel supplier certifications submitted represent all of the fuel combusted during the quarter.	GP007
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 12/19/2002. 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.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 12/19/2002 (for the previous calendar year). The Certification shall be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604.	Total Facility
Compliance Certification	due 365 days after end of each calendar year following Notification of compliance status	GP001

## APPENDIX MATERIAL

Facility Name: Minnesota Soybean Processors - Brewster

Permit Number: 10500053-002

## INSIGNIFICANT ACTIVITIES

IA001            Laboratory

Basis: Minn. R. 7007.1300, subp. 3 G

IA002            Lime Silo (part of process water treatment)

Basis: Minn. R. 7007.1300, subp. 3 D

IA003            Soda Ash Silo (part of process water treatment)

Basis: Minn. R. 7007.1300, subp. 3D

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT AIR EMISSION PERMIT NO. 10500053-002**

This technical support document is for all the interested parties of the draft permit. The purpose of this document is to set forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

**1. General Information**

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

Owner and Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 2075)
Minnesota Soybean Processors	Corner 200 <sup>th</sup> & Zeh Avenue Brewster Nobles County, MN 56119

**1.2. Description of the facility**

From the initial Permit (-001), Minnesota Soybean Processors (Permittee) was authorized to construct and operate a 3,000 ton per day soybean processing plant in the city of Brewster, Nobles County, Minnesota.

The facility at Brewster will receive raw soybeans and process them, extracting crude soybean oil from the beans. By-products of the oil processing are soy meal and hulls, which are sold for animal feed.

Soybeans will be delivered from the local farmers or grain storage facilities by semi-trailer truck. The soybeans are off-loaded and stored in bins having a storage capacity of 2.3 million bushels. From storage the beans are sent to a screening and cleaning area in the preparation building where trash accompanying the beans is removed. From here the beans are routed to the dehulling process. The hull of the bean will be ground. The ground soybean hulls are usually formed into pellets and sold as animal feed. The meat of the bean is cracked into larger chunks, conditioned (heated) and then pressed into flakes. These materials are then sent to the extraction building.

The flakes are washed in the extraction building with a solvent, commercial hexane, to strip the oil from the flakes. The mixture of solids and solvent are separated. The solids, which are still laden with hexane, are sent to a meal desolventizer where they are heated and the solvent is volatilized. The solvent-free solids are then cooled, ground and stored as meal. This meal is sold as animal feed. The liquid removed from the solids consists of hexane, soybean oil and water and is called the miscella.



The miscella is separated into its components using distillation. The hexane is reused, the water disposed of and the oil, termed "crude oil," is stored. The crude oil will be shipped off-site, to be refined into various products.

The meal and oil products will be shipped from the facility by rail and truck.

Besides receiving, preparation and extraction there will be a weigh station, offices and a lab, a steam generation plant, maintenance, and warehousing. The steam plant will fire, primarily, natural gas.

The following are groups of equipment that will emit regulated air pollutants:

Headhouse

Particulate emissions: Receiving pits and conveyors

Preparation

Particulate emissions: Screeners, pod grinders, aspirators, crackers, heaters, hull grinders, conveyors, pelletizers, coolers, flakers

Solvent Extraction

VOC, HAPs (n-hexane), and particulate: Extractors, desolventizers, MOS, reboilers, work tank

Meal Preparation

Particulate emissions: Meal conveyors, grinders, loadout

Steam Plant

The boiler emits particulate, VOCs, sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>) and carbon monoxide (CO).

The initial project (Permit -001) was subject to Federal New Source Review (NSR).

### **1.3 Description of any changes allowed with this permit issuance**

This purpose of this amendment (-002) is to allow the Permittee to correct the Particulate Matter (PM)/Particulate Matter less than 10 microns (PM<sub>10</sub>) Best Available Control Technology (BACT) limits, for the boilers (EU 026 & EU 027) in Permit 10500053-001, to reflect the approved limits in the August 2002 permit application.

Two insignificant activities are also being authorized to be added. A lime silo and soda ash silo have been added to the original plant design as part of the process water treatment. Both silos vent inside, 100 percent of the time, through fabric filters.

**1.4. Facility Emissions:**

Table 1. Emissions Associated With the Modification

Pollutant	Potential to Emit from the modification * (TPY)	Emission Increases Authorized with this Permit Action	Emission Decreases Authorized with this Permit Action	**Other contemporaneous emission increases/decreases (TPY)	Net Emission Change (TPY)	NSR/112(g) Threshold Level (TPY)	NSR/MACT Review Required (Yes or No)
PM	11.48	Na	Na	Na	11.48	250/25	No
PM <sub>10</sub>	0.08	Na	Na	Na	0.08	250/15	No
SO <sub>2</sub>	0	Na	Na	Na	0	250/40	No
NO <sub>x</sub>	0	Na	Na	Na	0	250/40	No
VOC	0	Na	Na	Na	0	250/40	No
CO	0	Na	Na	Na	0	250/100	No
Lead	0	Na	Na	Na	0	250/0.6	No
HAPs (total)	0	Na	Na	Na	0	25	No

\*These emissions are already reflected in the -001 calculations. These emissions are from EU 026 and EU 027.

\*\*Other emission changes during the contemporaneous period as defined by 40 CFR § 52.21, 40 CFR § 52.24 or 40 CFR 51

	PM tpy	PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions Prior to -002*	232.79	135.42	22.4	69.1	65.8	1085.3	3.98E-03	948.3	948.7
Emission Increase Authorized by -002	11.48**	0.08**							
Total Facility Limited Potential Emissions After -002***	244.27	135.50	22.4	69.1	65.8	1085.3	3.98E-03	948.3	948.7

- \* Based on -001 permit limits (not -001 application calculations)
- \*\* PM/PM<sub>10</sub> emissions already accounted for in -001 public notice.
- \*\*\* Same emissions as in permit -001 public notice.

Table 2. Permit Action Classification for -002 Amendment

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)			PM/PM <sub>10</sub>
NAAR (list pollutant)	NA	NA	NA

\* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

Table 3. Total Facility and Permit Classification (reflecting both -001 and -002)

<b>Classification (put x in appropriate box)</b>	<b>Major/Affected Source</b>	<b>*Synthetic Minor</b>	<b>*Minor</b>
PSD (list pollutant)	PM, PM <sub>10</sub> , NO <sub>x</sub> , VOC		CO, SO <sub>2</sub> , Pb
NAAR (N/A)			
Part 70 Permit Program (list pollutant)	PM, PM <sub>10</sub> VOC, n-hexane, Total HAP		NO <sub>x</sub> , SO <sub>2</sub> , CO, Pb

\* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

## 2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

### Regulatory Overview of Units Affected by the Modification

## 2. Regulatory and/or Statutory Basis

*Federal New Source Review:* The potential emissions of the criteria pollutants are not above significant thresholds. Hence, the amendment modifications are not considered major under the applicable NSR regulation, Prevention of Significant Deterioration (PSD), 40 CFR § 52.21.

*Federal New Source Performance Standards:* No NSPS requirements apply to this amendment (-002).

*Federal National Emission Standard for Hazardous Air Pollutants:* NA

*Minnesota Performance Standards:* NA

*Minnesota and National Ambient Air Quality Standards/Ambient Impacts:* The Permittee previously (-001) performed dispersion modeling on PM<sub>10</sub>. The Permittee determined that the predicted impacts of the plant's operation are below all ambient air quality standards and PSD increment levels. The PM<sub>10</sub> emissions are not changing in this amendment. Hence, the modeling results have not changed.

*Minnesota Draft Health Risk Values:* NA

*Minnesota Environmental Assessment Worksheet:* Minnesota rules require an environmental review if the potential emissions increase of any criteria pollutant exceeds 100 tons per year (tpy). Hence, an Environmental Assessment Worksheet was not required.

Below is a summary table of the regulations used to derive the limits and conditions set in the permit:

Table 4. Regulatory Overview

*EU, GRP, or SV #	Applicable Regulations	**Comments
GP007	40 CFR § 52.21	Good combustion practice previously (-001) set as BACT limits set for PM/PM <sub>10</sub>

### 3. Technical Information

The purpose of this amendment is to allow the Permittee to correct the PM/PM<sub>10</sub> BACT limits, for the boilers in Permit 10500053-001, to reflect the approved limits in the August 2002 permit application.

The Permit application (-001) used PM/PM<sub>10</sub> emission factors found in AP-42. The AP-42 emission factors are attached. The PM AP-42 emission factors list total, condensable, and filterable. The permit application (-001) correctly used the total emission factor (condensable plus filterable) for both PM and PM<sub>10</sub>. The -001 permit used less than the total. It used the same factor for PM and PM<sub>10</sub> for both natural gas and #2 oil. The emissions throughout the BACT analysis (-001) were correctly based on the total emission factor. From -001, the emission calculations and BACT analysis are attached. The PM<sub>10</sub> emission factors were correctly listed in the permit. However, the PM permit emission factors were not correctly listed. This amendment (-002) merely corrects the PM BACT limits to equal the PM<sub>10</sub> BACT limits in the permit. This reflects the limits that were used in the August 2002 permit application.

In addition, the natural gas PM<sub>10</sub> emission factor is also increased due to a change in the use of a heat value factor from 1050 to 1020 Btu/cf. The 1020 Btu/cf was used in the -001 calculations. The 1050 Btu/cf was erroneously used in setting the -001 permit limit. The -001 application used the 1020 Btu/cf value.

### 4. Conclusion

Based on the information provided by Minnesota Soybean Processors, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in Air Emission Permit No. 10500053-002 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Bruce Braaten

Attachment: AP-42 Emission factors

Permit application (-001) PM/PM10 BACT analysis

Permit application (-001) boiler emission calculations

*Appendix*

## Total Facility Potential to Emit Summary after -002:

Emission Unit Description	EU #	SV #	PM (tpy)	PM <sub>10</sub> (tpy)	SO <sub>2</sub> (tpy)	NO <sub>x</sub> (tpy)	VOC (tpy)	CO (tpy)	Pb (tpy)	Single HAP (tpy)	All HAPs (tpy)
Receiving	001	001	3.94	3.94							0.00
Transfer	002	002	2.82	2.82							0.00
Bean cleaning	003	003	0.73	0.73							0.00
Bean heating	004	004	57.26	28.63							0.00
Jet drying	005										
Hulloosensors	006										
Cracking	007										
Secondary aspirator	008										
Hot Dehulling											
Hull grinding	009	005	2.25	2.25							0.00
Ground Hull Bins	010	006	0.13	0.13							0.00
Pellet cooler	011	007	6.83	3.42							0.00
Flakers	012	011	19.52	9.76							0.00
Mineral Oil System	013	020					54.02			47.41	47.41
Pellet storage tank	014	008	0.13	0.13							0.00
Blending	015	009	1.22	1.22							0.00
Dryer deck # 1	016	013									
Dryer deck # 2	017	014									
Cooling deck # 1	018	015									
Cooling deck # 2	019	016									
Dryer deck # 3 (future)	029	031									
Cooler deck # 3 (future)	030	032									
DT/DC Decks			105.42	52.71			486.16			426.65	426.65
Meal grinding	020	012	1.80	1.80							0.00
Meal bin	021	017	1.23	1.23							0.00
Bleach clay/diatomaceous earth	022	025	0.14	0.14							0.00
Meal/hull load-out (Truck #1)	024	018	4.80	4.80							0.00
Meal/hull load-out (Truck # 2/rail)	025	019	4.80	4.80							0.00
Boilers		021									
First Boiler	026		6.37	6.37	11.05	32.22	2.13	32.46	1.99E-03		1.41E-01

Second Boiler	027		6.37	6.37	11.05	32.22	2.13	32.46	1.99E-03		1.41E-01
Fire Pump Engine	028	030	0.17	0.17	0.15	2.33	0.19	0.50			0.00
Genset (Emergency)	031	033	0.11	0.11	0.10	1.56	0.12	0.34			0.00
Commercial Hexane 1	TK 001	020									0.00
Commercial Hexane 2	TK 002	020									0.00
Commercial Hexane 3	TK 003	020									0.00
Commercial Hexane 4	TK 004	020									0.00
First Distillate FO #2	TK 005						0.01				0.00
Second Distillate FO#2	TK 006						0.01				0.00
Fugitive Emissions		FS 001					540.18			474.06	474.06
Onsite Vehicle Traffic		FS 002	13.03	2.54		0.79					0.00
Bean Pile		FS 003	4.94	1.23							0.00
Cooling Tower		FS 004	0.27	0.20							0.00
Lab Hood		IA 001					0.33			0.16	0.33
		<b>Totals</b>	<b>244.27</b>	<b>135.50</b>	<b>22.36</b>	<b>69.12</b>	<b>1085.25</b>	<b>65.76</b>	<b>3.98E-03</b>	<b>948.28</b>	<b>948.72</b>

	<b>PM (tpy)</b>	<b>PM<sub>10</sub> (tpy)</b>	<b>SO<sub>2</sub> (tpy)</b>	<b>NO<sub>x</sub> (tpy)</b>	<b>VOC (tpy)</b>	<b>CO (tpy)</b>	<b>Pb (tpy)</b>	<b>Single HAP (tpy)</b>	<b>All HAPs (tpy)</b>
Total Facility Limited Potential Emissions*	<b>244.27</b>	<b>135.50</b>	<b>22.36</b>	<b>69.12</b>	<b>1085.25</b>	<b>65.76</b>	<b>3.98E-03</b>	<b>948.28</b>	<b>948.72</b>

- The above PM stays the same in terms of previously calculated PTE from the -001 permit application. But the permitted emissions increase by 11.48 tpy for the 2 boilers.
- The above PM<sub>10</sub> the same in terms of previously calculated PTE from the -001 permit application. But the permitted emissions increase by 0.08 tpy for the 2 boilers.