

DRAFT

AIR EMISSION PERMIT NO. 13900120-002
Total Facility Operating Permit

IS ISSUED TO

Great Plains Sand LLC

GREAT PLAINS SAND LLC PROCESSING FACILITY
15566 Johnson Memorial Drive
Shakopee, Scott County, MN 55379

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

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 are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

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

Permit Type: State; Limits to Avoid Pt 70/Limits to Avoid NSR;

Operating Permit Issue Date: <issue date>

Expiration Date: <expiration date or Non-Expiring> – All Title I Conditions do not expire.

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

for John Linc Stine
Commissioner
Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action
Registration Permit	November 17, 2008	001
Total Facility Operating Permit	February 08, 2012 (initial) July 26, 2012 (final)	002

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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:

Great Plains Sand, LLC is proposing to construct a facility to produce silica sand that can be used in hydraulic fracturing sand (frac sand) for use in the oil and gas industry. The proposed site has a history of mining; active mining on this site occurred in the 1980's. Since that time there have been other land use operations on site. Some equipment, processing buildings and rail load out facilities still exist and will be used in this operation. Processes at the mine will include the mining of sandstone, washing, drying, screening and loadout of the sand.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 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

What to do	Why to do it
SOURCE-SPECIFIC REQUIREMENTS	hdr
Permit Appendix: This permit contains an appendix as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendix.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
Comply with Fugitive Emission Control Plan: This plan shall identify all fugitive emission sources, primary and contingent control measures, and record keeping. The Permittee shall follow the actions and recordkeeping specified in the 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 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. (the Fugitive Dust plan was developed in support of the Scott County Conditional Use permit)	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0150; Minn. R. 7009.0020
Feed Material Moisture Content: greater than or equal to 2.00 percent	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Demonstrate the moisture content is greater than or equal to 2.00% by either 1 or 2: 1. Test moisture content of each different feed material source (sampled at an area representative of the feed source and physically capable of being sampled), as follows: a. Use ASTM method numbers D 2216-92 or D 4643-93 (or equivalent). b. Keep records of each moisture content test summarizing the method used, results, date, time, and initials of person performing test. c. Test weekly, when operating, unless three consecutive tests at the stationary source location show moisture contents of greater than or equal to 2.0 percent after which testing is no longer required until the source of the feed material changes.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
d. When testing indicates that feed material moisture content is less than 2.00%, in situations where it is infeasible to sample and test, or where the Permittee elects not to sample and test, the Permittee shall operate a moisture addition device at or immediately prior to the initial crusher(s) or initial screen(s) where unprocessed feed material is being fed to achieve a moisture content greater than or equal to 2.00%. Moisture addition during operation shall continue until subsequent moisture content testing demonstrates that feed material moisture content is greater than or equal to 2.00%. Daily, when operating, either:	(continued) Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
i. Keep records of the date, water flow rate, material throughput rate, initials of the person making the record, and the time the record was made; or ii. Conduct moisture content testing on the feed material after water application, and if results show moisture content is less than 2.00%, increase water addition to insure moisture content is 2.00% or greater and re-test to verify. 2. Keep records indicating instances when feed material was sourced from or is being removed from below the water table or wet processed prior to arriving at the site. Records shall include a description of the source, the corresponding dates, and the initials of the person making the record.	(continued) Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Non-Process Dust Control: All reasonable measures shall be taken to prevent avoidable amounts of particulate matter from becoming airborne. In a practical manner this refers to preventing avoidable visible dust emissions beyond the lot line surrounding the stationary source. Control of non-process dust emissions can be achieved through such measures as applying water or commercially available dust suppressant to stockpiles, unpaved roads and handling areas. The permittee will minimize fugitive dust by following the Fugitive Dust Control Plan.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
In addition, the following requirements apply to the Permittee:	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

<ol style="list-style-type: none"> Record date and time of action and name of person making the record. Record amount of water or dust suppressant applied. If a commercially available dust suppressant is used, it shall be applied in accordance with the manufacturer's guidelines. The Permittee must keep a copy of these manufacturer's guidelines. Record the location (e.g., site sketch) of water or dust suppressant application. Install a rain gauge at the site and record the precipitation in the previous 24 hours for each day of operation at the site. Make and record basic weather observations according to the MPCA Weather Summary Criteria that best characterize each operating day. Unpaved roads at the site shall be posted with speed limit signs indicating a maximum speed of 15 miles per hour. Equipment to apply water or dust suppressant shall always be available at the site or on call for use at the site within a given operating day. 	(continued) Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Labeling Requirements: Permanently affix the manufacturer's serial number (or otherwise unique identifying number) to each piece of crushing, screening, transfer operation, and stationary internal combustion engine equipment for tracking purposes within 60 days of permit issuance. The number shall be permanently affixed and maintained so that it is readable and visible at all times from a safe distance at each stationary source. This number shall correspond to the number contained in records regarding the piece of equipment.	Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50 Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010 - 7009.0080
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.	Minn. R. 7007.0800, subps. 2 & 16(J)
Operation and Maintenance (O&M) Plan: Retain at the stationary source an O&M plan for all air pollution control equipment. At a minimum, the O&M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subps. 14 & 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017.	Minn. R. ch. 7017

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - CD Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4; Minn. R. 7017.2035, subps. 1-2</p>
<p>Opacity Performance Testing: As provided in Minn. R. 7017.2020, subp. 2, the Permittee may conduct performance testing required by this permit as included in an approved performance test plan. The Permittee shall be certified in Method 9. The number of tests to be determined by the Permittee and MPCA.</p>	<p>Minn. R. ch. 7017</p>
<p>On each day of operation, the Permittee shall ensure that at least one Method 9 certified employee is onsite.</p>	<p>Minn. R. ch. 7017</p>
<p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.</p>	<p>Minn. R. 7017.2025</p>
<p>MONITORING REQUIREMENTS</p>	<p>hdr</p>
<p>Monitoring Equipment Calibration: Annually calibrate or replace all required monitoring equipment.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>Operation of Monitoring Equipment: Monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>RECORDKEEPING</p>	<p>hdr</p>
<p>Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.</p>	<p>Minn. R. 7007. 0800, subp. 5(B)</p>
<p>If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the office of the stationary source for all other years. The records may be maintained in either electronic or paper format.</p>	<p>Minn. R. 7007.1200, subp. 4</p>
<p>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>

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. The cause of the deviation; 2. The exact dates of the period of the deviation, if the deviation has been corrected; 3. Whether or not the deviation has been corrected; 4. The anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150-7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 - 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 - 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 - 7002.0095
NEW SOURCE PERFORMANCE STANDARDS - General Provision	hdr
Notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e)	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements.	40 CFR Section 60.15(d); Minn. R. 7011.0050

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

- Subject Item:** GP 001 Mining Operations
- Associated Items:** EU 001 Drill
FS 001 Blasting Process
FS 002 Backhoe
FS 003 Bulldozer
FS 004 Front End Loader w/Attached Rock Breaker
FS 005 Mine Front End Loader
FS 007 Mine Sand Stockpile

What to do	Why to do it
OPERATIONAL REQUIREMENTS (see each associated item)	hdr

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 002 Equipment Subject to NSPS, Subpart OOO Vented from SV002 (with Capture Systems)**Associated Items:** CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 017 Dryer Output Conveyor

EU 021 Bucker Elevator 2

EU 022 Bucker Elevator Conveyor

EU 023 Bucker Elevator 3

EU 024 Bucker Elevator 4

EU 026 Screen 1

EU 028 20x40 Cross Conveyor

EU 030 Screen 2

EU 033 Screen 3

EU 036 Screen 4

EU 038 Screen 5

EU 041 Waste Belt Conveyor

EU 052 Conveyor to Dry Storage

EU 053 Bucket Elevator 5

EU 054 Storage Silo 1

EU 055 Storage Silo 2

EU 056 Storage Silo 3

EU 057 Reclaim Conveyor 1

EU 058 Reclaim Conveyor 2

EU 059 Reclaim Conveyor 3

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
The requirements of this group apply individually to each associated item in this group.	Minn R. 7007.0800, subp. 2
The permittee must comply with 40 CFR pt. 60 - Standards of Performance for New Stationary Sources OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.	Minn R. 7007.0800, subp. 2
Total Particulate Matter: less than or equal to 0.014 grains/dry standard cubic foot	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; 40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;
Total Particulate Matter: less than or equal to 4.80 lbs/hour using 3-hour Average (this limit is based on a maximum air flow of 40,000 acfm).	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 2;
Monitoring: the facility must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR pt. 60, Appendix A-7). The Method 22 (40 CFR pt. 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR pt. 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under 40 CFR Section 60.676(b). (continued)	40 CFR Section 60.674(c); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to 40 CFR Section 60.675(b) simultaneously with a Method 22 (40 CFR pt. 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.	40 CFR Section 60.674(c); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
RECORDKEEPING AND REPORTING	hdr
Recordkeeping: Record the measurements of the pressure drop across the fabric filter at least once daily.	40 CFR Section 60.676; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
Corrective Actions: 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. Keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subps. 4, 5, & 14
The Permittee must record each periodic inspection required under 40 CFR Section 60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.	40 CFR Section 60.676(b)(1); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR Section 60.672(b), (e) and (f) of this subpart, including reports of opacity observations made using Method 9 (40 CFR pt. 60, Appendix A-4).	40 CFR Section 60.676(f); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup to measure Total Particulate Matter emissions.	40 CFR Section 60.675(b); 40 CFR Section 60.8(a); Minn. R. 7017.2020, subp. 1; Minn. R. 7007.3350
Initial Performance Test: due 180 days after Initial Startup to measure Opacity.	40 CFR Section 60.675(b); 40 CFR Section 60.8(a); Minn. R. 7017.2020, subp. 1; Minn. R. 7007.3350
CONTROL EQUIPMENT (see CE 004)	hdr
The Permittee shall vent emissions from this item to the control equipment meeting the requirements of CE 004 as specified in this permit.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2; 40 CFR Section 60.672
NEW SOURCE PERFORMANCE STANDARDS - General Provisions	hdr
Notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e)	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 day prior to observation date.	40 CFR Section 60.7(a)(6); Minn. R. 7019.0100, subp. 1
If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements.	40 CFR Section 60.15(d); Minn. R. 7011.0050
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b), Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years. 40 CFR Section 60.7(f) specifies two years.	Minn. R. 7007.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Opacity Compliance: Demonstrate compliance with opacity standards using Reference Method 9.	40 CFR Section 60.11; Minn. R. 7017.2015
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-9**

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 003 Equipment Subject to MN Process Equipment Rule Vented through SV002

Associated Items: EU 025 Screen Feed Split Hopper
 EU 027 Screen 1 Split Hopper
 EU 029 20x40 Screw 1
 EU 031 Screen 2 Split Hopper
 EU 032 20x40 Screw 2
 EU 034 30x50 Screw 1
 EU 035 40x70 Screw
 EU 037 30x50 Screw 2
 EU 039 30x50 Screw 3
 EU 040 Screen 1 and 2 Waste Screw
 EU 042 Waste Bin
 EU 043 20x40 Bin 1
 EU 044 20x40 Bin 2
 EU 045 20x40 Bin 3
 EU 046 30x50 Bin 1
 EU 047 30x50 Bin 2
 EU 048 30x50 Bin 3
 EU 049 40x70 Bin 1
 EU 050 40x70 Bin 2
 EU 051 40x70 Bin 3
 EU 060 Bin Bottom Conveyor 1
 EU 061 Bin Bottom Conveyor 2
 EU 062 Bin Bottom Conveyor 3
 EU 063 Collector Conveyor
 EU 064 Incline Conveyor
 EU 065 Rail Car Loadout Chute
 EU 066 Truck Loadout Chute
 EU 082 Transfer Hopper
 SV 002 Processing Exhaust

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to 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**A-10** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 004 Points Subject to NSPS, Subpart OOO Not Vented from Stacks

Associated Items: EU 003 Grizzly Conveyor
 EU 006 Under Jaw Crusher Belt
 EU 008 Feeder 1
 EU 009 Feeder 2
 EU 010 Tunnel Conveyor
 EU 011 Screen Feed Conveyor
 EU 012 Dryer Belt Feeder
 EU 013 Dryer Belt Conveyor
 EU 016 Baghouse Collector Screw Hopper
 EU 019 Rock Chute
 EU 020 Rock Hopper
 EU 067 Under Track Unload Conveyor
 EU 068 Dryer Baghouse Discharge Hopper
 EU 081 Dense Phase Conveyor
 EU 082 Transfer Hopper

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
The requirements of this group apply individually to each associated item in this group.	Minn R. 7007.0800, subp. 2
The permittee must comply with 40 CFR pt. 60 - Standards of Performance for New Stationary Sources OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.	Minn R. 7007.0800, subp. 2
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672(b); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
MONITORING (see EU 005, the Permittee must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system.)	hdr
The Permittee shall comply with the monitoring requirements as specified in EU 005.	Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
RECORDKEEPING AND REPORTING	hdr
The Permittee must record each periodic inspection required under 40 CFR Section 60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.	40 CFR Section 60.676(b)(1); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR Section 60.672, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with 40 CFR Section 60.672(b), (e) and (f).	40 CFR Section 60.676(f); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup to measure opacity.	40 CFR Section 60.675(b); 40 CFR Section 60.8(a); Minn. R. 7017.2020, subp. 1; Minn. R. 7007.3350
NEW SOURCE PERFORMANCE STANDARDS - General Provisions	hdr
A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e).	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 day prior to observation date.	40 CFR Section 60.7(a)(6); Minn. R. 7019.0100, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-11** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements.	40 CFR Section 60.15(d); Minn. R. 7011.0050
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b), Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years. 40 CFR Section 60.7(f) specifies two years.	Minn. R. 7997.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1
Opacity Compliance: Demonstrate compliance with opacity standards using Reference Method 9.	40 CFR Section 60.11; Minn. R. 7017.2015

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-12** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 005 Insignificant Activities Subject to NSPS, Subpart OOO (Wet Plant)**Associated Items:** EU 070 Wet Screen

EU 071 Wet Plant 5x12 Dewatering Screen

EU 072 Wet Plant 40 Mesh Jump Conveyor

EU 073 Wet Plant 40 Mesh Transfer Conveyor

EU 074 Wet Plant 4x10 Dewatering Screen #1

EU 075 Wet Plant 40x70 Jump Conveyor

EU 076 Wet Plant 40x70 Transfer Conveyor

EU 077 Wet Plant 4x10 Dewatering Screen #2

EU 078 Wet Plant Belt Press Belt

EU 079 Wet Plant Transfer Conveyor

EU 080 Wet Plant Product Loadout Conveyor

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
The requirements of this group apply individually to each associated item in this group.	Minn R. 7007.0800, subp. 2
The permittee must comply with 40 CFR part 60 - Standards of Performance for New Stationary Sources OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.	Minn R. 7007.0800, subp. 2
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672(b); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
MONITORING	hdr
Monitoring: the Permittee must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR part 60.676(b).	40 CFR Section 60.674(b); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
RECORDKEEPING AND REPORTING	hdr
The Permittee must record each periodic inspection required under 40 CFR Section 60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.	40 CFR Section 60.676(b)(1); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR Section 60.672, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with 40 CFR Section 60.672(b), (e) and (f).	40 CFR Section 60.676(f); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup to measure opacity.	40 CFR Section 60.675(b); 40 CFR Section 60.8(a); Minn. R. 7017.2020, subp. 1; Minn. R. 7007.3350
If the Opacity test results are greater than 0%, the facility shall submit a permit amendment to incorporate additional testing and a test frequency plan.	Minn. R. 7017.2020, subp. 1; Minn. R. 7007.0800, subp. 2
NEW SOURCE PERFORMANCE STANDARDS - General Provisions	hdr
If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 day prior to observation date.	40 CFR Section 60.7(a)(6); Minn. R. 7019.0100, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-13** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e).	40 CFR Section 60.15(d); Minn. R. 7011.0050
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b), Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years. 40 CFR Section 60.7(f) specifies two years.	Minn. R. 7997.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1
Opacity Compliance: Demonstrate compliance with opacity standards using Reference Method 9.	40 CFR Section 60.11; Minn. R. 7017.2015

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 006 Unpaved Roads**Associated Items:** FS 013 Unpaved Mine Roads

FS 014 Unpaved Processing Plant Roads

What to do	Why to do it
<p>The Permittee shall water the unpaved roads at the facility. Watering shall comply with the following conditions:</p> <p>a. The water application rate shall be at least 0.1 gallon of water for each 1 square foot every 24 hours.</p> <p>b. A rainfall of at least 0.16 inch during the previous 24 hours shall substitute for one water application, unless the moisture content is rated as "dry." "Dry" is defined as having a moisture content less than or equal to 2.0% as measured at three of the most frequently traveled and dry road segments.</p> <p>c. When visible emissions are observed, the facility shall water the source of those visible emissions until the moisture content of the source is greater than 2.0%.</p>	<p>Minn. R. 7009.0020 (This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act)</p>
<p>d. If unpaved roads cannot be watered because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35 degrees F (1.7C), or conditions due to weather, in combination with the application of water, could create hazardous driving conditions, then watering shall be postponed and accomplished as soon as the conditions have abated.</p> <p>e. Water application is not required on days when there is no vehicle traffic.</p> <p>f. Water application is not required when the daily qualitative assessment of the moisture content is "wet." "Wet" is defined as having a moisture content greater than 2.0%.</p> <p>g. Following any day when water is not applied based on the absence of traffic, water shall be applied within 3 hours of commencement of vehicle traffic, unless another criterion for not watering is met.</p>	<p>(continued) Minn. R. 7009.0020 (This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act)</p>
<p>Daily Recordkeeping: The Permittee shall keep records of the water applications, including the following:</p> <p>a. The roads watered, the amount of water applied, the time watered, and the method of application. If water was not applied because there was a 0.16 inch or greater rainfall within the previous 24 hours, or because of the temperature or other weather conditions that would result in unsafe driving conditions, it must be noted in the record along with the source of measurement (i.e. on-site rain gauge or thermometer).</p> <p>b. Records of watering equipment breakdowns and repairs, and records of contingency efforts undertaken.</p> <p>c. Whether or not visible emissions were observed. If visible emissions are observed record the source of those emissions and the contingency efforts undertaken.</p>	<p>Minn. R. 7007.0800, subps. 4 & 5</p>
VISIBLE EMISSION REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) once each calendar day of operation.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Maintain watering records for unpaved roads.	

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 007 Fabric Filters**Associated Items:** CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
OPERATIONAL REQUIREMENTS (see CE 001 through CE 004 for additional requirements)	hdr
The Permittee shall comply with the requirements of CE 001-CE 004 as specified in this permit.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Pressure Drop. The Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
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: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
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, subps. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subps. 4, 5 and 14
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

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 008 Gasoline Dispensing Facilities - NESHAP Subpart CCCCCC**Associated Items:** TK 001 Diesel

TK 002 Gasoline

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
<p>The permittee must comply with 40 CFR pt. 63, Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities</p> <p>The permittee must comply with this subpart. This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.</p>	40 CFR Section 63.11110, Minn R. 7007.0800, subp. 2
Process Throughput: less than or equal to 10000 gallons/month using 30-day Rolling Average of gasoline throughput.	40 CFR Section 63.11111(b)
Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source. Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.	40 CFR Section 63.11111(h), 40 CFR Section 63.11132
EMISSION LIMITATIONS AND MANAGEMENT PRACTICES	hdr
The Permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	40 CFR Section 63.11115(a)
The Permittee must keep applicable records and submit reports as specified in 40 Section part 63.11125(d) and 40 CFR Section 63.11126(b).	40 CFR Section 63.11115(a)
<p>The Permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:</p> <p>(1) Minimize gasoline spills;</p> <p>(2) Clean up spills as expeditiously as practicable;</p> <p>(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;</p> <p>(continued)</p>	40 CFR Section 63.11116(a)
<p>The Permittee must:</p> <p>(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.</p> <p>(b) have records available within 24 hours of a request by the Administrator to document your gasoline throughput.</p> <p>(c) Comply with the requirements of this subpart.</p> <p>(d) Portable gasoline containers that meet the requirements of 40 CFR pt. 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.</p>	40 CFR Section 63.11116(a)
RECORDKEEPING AND REPORTING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-17****07/27/12**

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

<p>The Permittee shall keep:</p> <p>1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR Section 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.</p>	40 CFR Section 63.11125(d)
<p>The Permittee shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Section 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.</p>	40 CFR Section 63.11126(b)
<p>The Permittee shall keep records of fuel type and throughput on a daily basis.</p>	Minn. R. 7007.0800, subp. 5
<p>NESHAP General Provisions</p>	hdr
<p>Proper Operation and Maintenance: At all times, including periods of startup, shutdown and malfunction, the Permittee shall operate and maintain the emission unit subject to the MACT standard and its associated air pollution control and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.</p>	40 CFR Section 63.6(e)(1)(i); Minn. R. 7011.7000
<p>The Permittee may be required to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.</p>	40 CFR Section 63.7; Minn. R. 7007.0800, subp. 2
<p>Recordkeeping: The Permittee shall maintain files of all information required by 40 CFR pt. 63 in a form suitable and readily available for expeditious inspection and review.</p> <p>The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site.</p>	40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2(B)

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 009 Equipment Subject to Minn. R. 7011.0110**Associated Items:** EU 001 Drill

EU 002 Grizzly

EU 004 Grizzly Stacker

EU 007 Jaw Crusher Stacker

EU 015 Baghouse Collector Screw #1

EU 018 Static Grizzly

EU 069 Baghouse Collector Screw #2

EU 082 Transfer Hopper

What to do	Why to do it
The requirements of this group apply individually to each associated item in this group.	Minn R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0110
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup to measure Opacity.	Minn. R. 7017.2020, subp. 1;

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-19** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 010 Mine and Crusher Storage Piles**Associated Items:** FS 007 Mine Sand Stockpile

FS 008 Grizzly Stockpile

FS 009 Wet Screen Storage Pile 1

FS 010 Wet Screen Storage Pile 2

What to do	Why to do it
<p>The Permittee shall water the piles at the facility and maintain a moisture content greater than or equal to 2.0% at all times for exposed storage pile surfaces. Watering shall comply with the following conditions:</p> <ol style="list-style-type: none"> The water application rate shall be at least 0.1 gallon of water for each 1 square foot every 24 hours. A rainfall of at least 0.16 inches during the previous 24 hours shall substitute for one water application, unless the facility moisture content is rated as "dry." "Dry" is defined as having a moisture content less than 2.0%. If storage piles cannot be watered because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35 degrees F (1.7C), then watering shall be postponed and accomplished as soon as the conditions preventing water application have abated. 	Minn. R. 7007.0800, subp. 2
<p>Daily Recordkeeping: The Permittee shall keep records of the water applications, including the following:</p> <ol style="list-style-type: none"> The stock piles watered, the amount of water applied, the time watered, and the method of application. If water was not applied because there was a 0.16 inch or greater rainfall or because of the temperature, it must be noted in the record along with the source of measurement (i.e. on-site rain gauge or thermometer). Records of watering equipment breakdowns and repairs, and records of contingency efforts undertaken. Whether or not visible emissions were observed. If visible emissions are observed record the source of those emissions and the contingency efforts undertaken. 	Minn. R. 7007.0800, subps. 4 & 5
<p>Demonstrate the moisture content is greater than or equal to 2.00% by:</p> <ol style="list-style-type: none"> Test moisture content of each source (sampled at an area representative of the source and physically capable of being sampled), as follows: <ol style="list-style-type: none"> Use ASTM method numbers D 2216-92 or D 4643-93 (or equivalent). Keep records of each moisture content test summarizing the method used, results, date, time, and initials of person performing test. Test daily, when operating, when temperature is greater than 35 degree F (1.7C). When testing indicates that the material moisture content is less than 2.00%, in situations where it is infeasible to sample and test, or where the Permittee elects not to sample and test, the Permittee shall operate a moisture addition device to achieve a moisture content greater than or equal to 2.00%. Moisture addition during operation shall continue until subsequent moisture content testing demonstrates that feed material moisture content is greater than or equal to 2.00%. Daily, when operating, either: <ol style="list-style-type: none"> Keep records of the date, water application rate, material processing rate, initials of the person making the record, and the time the record was made; or Conduct moisture content testing on the material after water application, and if results show moisture content is less than 2.00%, increase water addition to insure moisture content is 2.00% or greater and re-test to verify. 	<p>Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
	(continued)
	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
	(continued)
	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
VISIBLE EMISSION REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) once each calendar day of operation.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Maintain watering records for storage piles.	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-20**

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: GP 011 Main Facility Storage Piles**Associated Items:** FS 011 Wet Concentrate + 40 Mesh Storage Pile

FS 012 40x70 Mesh Concentrate Storage Pile

What to do	Why to do it
<p>The Permittee shall water the storage piles at the facility and maintain a moisture content of no less than 2.0% at all times for exposed storage pile surfaces. Watering shall comply with the following conditions:</p> <ol style="list-style-type: none"> The water application rate shall be at least 0.1 gallon of water for each 1 square foot every 24 hours. A rainfall of at least 0.16 inches during the previous 24 hours shall substitute for one water application, unless the facility moisture content is rated as "dry." "Dry" is defined as having a moisture content less than 2.0%. If storage piles cannot be watered because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35 degrees F (1.7C), then watering shall be postponed and accomplished as soon as the conditions preventing water application have abated. 	Minn. R. 7007.0800, subp. 2
<p>Daily Recordkeeping: The Permittee shall keep records of the water applications, including the following:</p> <ol style="list-style-type: none"> The stock piles watered, the amount of water applied, the time watered, and the method of application. If water was not applied because there was a 0.16 inch or greater rainfall or because of the temperature, it must be noted in the record along with the source of measurement (i.e. on-site rain gauge or thermometer). Records of watering equipment breakdowns and repairs, and records of contingency efforts undertaken. Whether or not visible emissions were observed. If visible emissions are observed record the source of those emissions and the contingency efforts undertaken. 	Minn. R. 7007.0800, subps. 4 & 5
<p>Demonstrate the moisture content is greater than or equal to 2.00% by:</p> <ol style="list-style-type: none"> Test moisture content of each source (sampled at an area representative of the source and physically capable of being sampled), as follows: <ol style="list-style-type: none"> Use ASTM method numbers D 2216-92 or D 4643-93 (or equivalent). Keep records of each moisture content test summarizing the method used, results, date, time, and initials of person performing test. Test daily, when operating, when temperature is greater than 35 degree F (1.7C). 	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
<ol style="list-style-type: none"> When testing indicates that the material moisture content is less than 2.00%, in situations where it is infeasible to sample and test, or where the Permittee elects not to sample and test, the Permittee shall operate a moisture addition device to achieve a moisture content greater than or equal to 2.00%. Moisture addition during operation shall continue until subsequent moisture content testing demonstrates that feed material moisture content is greater than or equal to 2.00%. Daily, when operating, either: <ol style="list-style-type: none"> Keep records of the date, water application rate, material processing rate, initials of the person making the record, and the time the record was made; or Conduct moisture content testing on the material after water application, and if results show moisture content is less than 2.00%, increase water addition to insure moisture content is 2.00% or greater and re-test to verify. 	(continued) Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
VISIBLE EMISSION REQUIREMENTS	hdr
Check for visible emissions (during daylight hours) once each calendar day.	Minn. R. 7007.0800, subp. 4
Corrective Actions: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Maintain watering records for storage piles.	

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: SV 001 Dryer Exhaust**Associated Items:** EU 014 Dryer

What to do	Why to do it
PERFORMANCE TESTING (refer to EU 014)	hdr
To verify compliance with the EU 014 emission limits, Performance testing on EU 014 must be performed such that no dilution air enters the process during testing; testing is to be representative of EU 014 alone.	40 CFR Section 60.736(a) & (b); Minn. R. 7007.0800, subps. 2
Initial Performance Test: due 180 days after Initial Startup to measure Total Particulate Matter. During the test the permittee shall use the monitoring devices to determine the control equipment pressure drop range(s). The arithmetic averages of the three runs shall be used as the baseline average values for the limits.	40 CFR Section 60.736(a) & (b); Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure PM10 (including both filterable and back half condensables) emissions. During the test the permittee shall use the monitoring devices to determine the control equipment pressure drop range(s). The arithmetic averages of the three runs shall be used as the baseline average values for the limits.	Minn. R. 7007.0800, subp. 2; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure PM2.5 (including both filterable and back half condensables) emissions. During the test the permittee shall use the monitoring devices to determine the control equipment pressure drop range(s). The arithmetic averages of the three runs shall be used as the baseline average values for the limits.	Minn. R. 7007.0800, subp. 2; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure Opacity. During the test the permittee shall use the monitoring devices to determine the control equipment pressure drop range(s). The arithmetic averages of the three runs shall be used as the baseline average values for the limits.	40 CFR Section 60.736(a) & (b); Minn. R. 7017.2020, subp. 1

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: SV 002 Processing Exhaust

Associated Items:

- EU 017 Dryer Output Conveyor
- EU 021 Bucker Elevator 2
- EU 022 Bucker Elevator Conveyor
- EU 023 Bucker Elevator 3
- EU 024 Bucker Elevator 4
- EU 025 Screen Feed Split Hopper
- EU 026 Screen 1
- EU 027 Screen 1 Split Hopper
- EU 028 20x40 Cross Conveyor
- EU 029 20x40 Screw 1
- EU 030 Screen 2
- EU 031 Screen 2 Split Hopper
- EU 032 20x40 Screw 2
- EU 033 Screen 3
- EU 034 30x50 Screw 1
- EU 035 40x70 Screw
- EU 036 Screen 4
- EU 037 30x50 Screw 2
- EU 038 Screen 5
- EU 039 30x50 Screw 3
- EU 040 Screen 1 and 2 Waste Screw
- EU 041 Waste Belt Conveyor
- EU 042 Waste Bin
- EU 043 20x40 Bin 1
- EU 044 20x40 Bin 2
- EU 045 20x40 Bin 3
- EU 046 30x50 Bin 1
- EU 047 30x50 Bin 2
- EU 048 30x50 Bin 3
- EU 049 40x70 Bin 1
- EU 050 40x70 Bin 2
- EU 051 40x70 Bin 3
- EU 052 Conveyor to Dry Storage
- EU 053 Bucket Elevator 5
- EU 054 Storage Silo 1
- EU 055 Storage Silo 2
- EU 056 Storage Silo 3
- EU 057 Reclaim Conveyor 1
- EU 058 Reclaim Conveyor 2
- EU 059 Reclaim Conveyor 3
- EU 060 Bin Bottom Conveyor 1
- EU 061 Bin Bottom Conveyor 2
- EU 062 Bin Bottom Conveyor 3
- EU 063 Collector Conveyor
- EU 064 Incline Conveyor

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-23** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Associated Items: EU 065 Rail Car Loadout Chute

EU 066 Truck Loadout Chute

GP 003 Equipment Subject to MN Process Equipment Rule Vented through SV002

What to do	Why to do it
LIMITS	hdr
Total Particulate Matter: less than or equal to 0.014 grains/dry standard cubic foot	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 2; 40 CFR Section 60.672(a)
Total Particulate Matter: less than or equal to 4.80 lbs/hour using 3-hour Average (this limit is based on a maximum air flow of 40,000 acfm).	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 2;
Opacity: less than or equal to 7 percent (this requirement is more stringent than Minn. R. 7011.0715, and therefore satisfies the requirement of Minn. R. 7011.0715)	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;
Opacity: less than or equal to 20 percent opacity.	Minn. R. 7011.0715, subp. 1(B)
PM < 10 micron: less than or equal to 0.014 grains/dry standard cubic foot	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PM < 10 micron: less than or equal to 4.80 lbs/hour using 3-hour Average (this limit is based on a maximum air flow of 40,000 acfm).	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PM < 2.5 micron: less than or equal to 0.014 grains/dry standard cubic foot	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PM < 2.5 micron: less than or equal to 4.80 lbs/hour using 3-hour Average (this limit is based on a maximum air flow of 40,000 acfm).	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup to measure Total Particulate Matter emissions.	Minn. R. 7007.0800, subp. 2; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure PM10 emissions (including both filterable and back half condensables).	Minn. R. 7007.0800, subp. 2; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure PM2.5 emissions (including both filterable and back half condensables).	Minn. R. 7007.0800, subp. 2; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup to measure Opacity.	Minn. R. 7007.0800, subp. 2; Minn. R. 7017.2020, subp. 1

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: EU 001 Drill**Associated Items:** GP 001 Mining Operations

GP 009 Equipment Subject to Minn. R. 7011.0110

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Operating Hours: less than or equal to 2,600 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total hours the item is used at the facility. This shall be based on written usage logs, non-resettable hour meters and flowmeters.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2, and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 57011.3350
Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following for the listed item: 1) The total hours of operation for the previous calendar month using the daily usage records. 2) The 12 month rolling sum of total hours of operations for the previous 12 month period by summing the monthly total hours of operation data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-25** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: EU 005 Jaw Crusher

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
The requirements of this group apply individually to each associated item in this group.	Minn R. 7007.0800, subp. 2
The permittee must comply with 40 CFR pt. 60 - Standards of Performance for New Stationary Sources OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.	Minn R. 7007.0800, subp. 2
Opacity: less than or equal to 12 percent opacity	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
MONITORING	hdr
Monitoring: the Permittee must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR Section 60.676(b).	40 CFR Section 60.674(b); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
RECORDKEEPING AND REPORTING	hdr
The Permittee must record each periodic inspection required under 40 CFR Section 60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.	40 CFR Section 60.676(b)(1); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 Section 60.672, including reports of opacity observations made using Method 9 (40 CFR pt. 60, Appendix A-4) to demonstrate compliance with 40 CFR Section 60.672(b), (e) and (f).	40 CFR Section 60.676(f); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup to measure opacity.	40 CFR Section 60.675(b); 40 CFR Section 60.8(a); Minn. R. 7017.2020, subp. 1; Minn. R. 7007.3350
NEW SOURCE PERFORMANCE STANDARDS - General Provisions	hdr
Notification of Anticipated Date for Conducting Opacity Observations: due 30 day prior to observation date.	40 CFR Section 60.7(a)(6); Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b), Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years. 40 CFR Section 60.7(f) specifies two years.	Minn. R. 7997.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1
Opacity Compliance: Demonstrate compliance with opacity standards using Reference Method 9.	40 CFR Section 60.11; Minn. R. 7017.2015

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-26**

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: EU 014 Dryer**Associated Items:** CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 001 Dryer Exhaust

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
The permittee must comply with 40 CFR pt. 60 - Standards of Performance for New Stationary Sources Subpart UUU - Standards of Performance for Calciners and Dryers in Mineral Industries.	Minn R. 7007.0800, subp. 2
Allowed Fuels: Natural gas and propane. No other fuels shall be used.	Minn. R. 7007.0800, subp. 2
Total Particulate Matter: less than or equal to 0.025 grains/dry standard cubic foot	40 CFR Section 60.732(a)
Total Particulate Matter: less than or equal to 10.03 lbs/hour using 3-hour Average (this limit is based on a maximum air flow of 53,000 acfm).	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PM < 10 micron: less than or equal to 0.025 grains/dry standard cubic foot	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PM < 10 micron: less than or equal to 10.03 lbs/hour using 3-hour Average (this limit is based on a maximum air flow of 53,000 acfm).	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PM < 2.5 micron: less than or equal to 0.025 grains/dry standard cubic foot	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
PM < 2.5 micron: less than or equal to 10.03 lbs/hour using 3-hour Average (this limit is based on a maximum air flow of 53,000 acfm).	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2;
Opacity: less than or equal to 10 percent opacity	40 CFR Section 60.732(b)
MONITORING	hdr
Monitoring: the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.	40 CFR Section 60.734(a); Minn. R. 7007.0800, subp. 5
(b) In lieu of a continuous opacity monitoring system, the owner or operator an industrial sand fluid bed dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of 40 CFR pt. 60.	40 CFR Section 60.734(b); Minn. R. 7007.0800, subp. 5
RECORDKEEPING AND REPORTING	hdr
Recordkeeping: Records of the original measurements shall be retained for at least 2 years.	40 CFR Sections 60.735(a); Minn. R. 7011.3350
Reporting: Submit semiannual reports to the Administrator of exceedances of control device operating parameters. Exceedances are defined as all 6-minute periods during which the average opacity from dry control devices is greater than 10 percent.	40 CFR Section 60.735(c); Minn. R. 7011.3350
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, inspect the control equipment components. Maintain a written record of these inspections.	Minn. R. 7007.0800, subps. 4, 5, & 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-27** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Corrective Actions: Take corrective action as soon as possible if any of the following occur: - The recorded pressure drop is outside the required operating range; or - The control device(s) or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan. Keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subps. 4, 5, & 14
The Permittee shall keep records of fuel type and usage on a monthly basis.	Minn. R. 7007.0800, subp. 5
CONTROL EQUIPMENT - see also CE 001, CE 002, CE 003	hdr
The Permittee shall vent emissions from this item to the control equipment meeting the requirements of CE 001-CE 003 as specified in this permit.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2; 40 CFR Section 60.732(a)
PERFORMANCE TESTING (see SV 001)	hdr
To verify compliance with the EU 014 emission limits, Performance testing on EU 014 must be performed such that no dilution air enters the process during testing; testing is to be representative of EU 014 alone.	Minn. R. 7007.0800, subps. 2
NEW SOURCE PERFORMANCE STANDARDS - General Provisions	hdr
A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR Section 60.14(e).	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1
Notification of Anticipated Date for Conducting Opacity Observations: due 30 day prior to observation date.	40 CFR Section 60.7(a)(6); Minn. R. 7019.0100, subp. 1
If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements.	40 CFR Section 60.7(a); Minn. R. 7007.0800, subp. 2; Minn. R. 7011.3350
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b), Minn. R. 7019.0100, subp. 1
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years. 40 CFR Section 60.7(f) specifies two years.	Minn. R. 7997.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1
Opacity Compliance: Demonstrate compliance with opacity standards using Reference Method 9.	40 CFR Section 60.11; Minn. R. 7017.2015

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: **EU 025 Screen Feed Split Hopper**
Associated Items: CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 GP 003 Equipment Subject to MN Process Equipment Rule Vented through SV002
 SV 002 Processing Exhaust

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: EU 027 Screen 1 Split Hopper
Associated Items: CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
GP 003 Equipment Subject to MN Process Equipment Rule Vented through SV002
SV 002 Processing Exhaust

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: **EU 031 Screen 2 Split Hopper**
Associated Items: CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 GP 003 Equipment Subject to MN Process Equipment Rule Vented through SV002
 SV 002 Processing Exhaust

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: EU 054 Storage Silo 1

Associated Items: CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
GP 002 Equipment Subject to NSPS, Subpart OOO Vented from SV002 (with Capture Systems)
SV 002 Processing Exhaust

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: EU 055 Storage Silo 2

Associated Items: CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
GP 002 Equipment Subject to NSPS, Subpart OOO Vented from SV002 (with Capture Systems)
SV 002 Processing Exhaust

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: EU 056 Storage Silo 3

Associated Items: CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
GP 002 Equipment Subject to NSPS, Subpart OOO Vented from SV002 (with Capture Systems)
SV 002 Processing Exhaust

What to do	Why to do it
OPERATIONAL REQUIREMENTS AND LIMITS	hdr
Opacity: less than or equal to 7 percent opacity	40 CFR Section 60.672; Minn. R. 7007.0800, subp. 2;

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-34** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 014 Dryer

GP 007 Fabric Filters

What to do	Why to do it
OPERATIONAL REQUIREMENTS (see GP 007 for additional requirements)	hdr
The Permittee shall meet the requirements of GP 007 as specified in this permit.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
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 97.14 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 94.39 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 81.02 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 6.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subps. 4, 5, & 14; Minn. R. 7017.2025, subp. 3
RE-SETTING OF PRESSURE DROP RANGE LIMIT	hdr
Protocol for Re-Setting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be re-set, the re-set shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.	
Protocol for Re-Setting the Pressure Drop Range Limit, continued, The established Pressure Drop Range Limit shall be re-set as follows: - if the 3-hr average pressure drop recorded during the test is within the established range, it shall not be re-set and the established values remain the Pressure Drop Range Limit; - if the 3-hr average pressure drop is outside the range specified above, the range limit shall be re-set based upon the minimum and maximum pressure drop values exhibited during the performance test. The new minimum value for the range limit shall be half the lowest recorded reading and the new maximum value for the range limit shall be two times the highest recorded value. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit.	Minn. R. 7007.1500, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-36**

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 014 Dryer

GP 007 Fabric Filters

What to do	Why to do it
OPERATIONAL REQUIREMENTS (see GP 007 for additional requirements)	hdr
The Permittee shall meet the requirements of GP 007 as specified in this permit.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
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 97.14 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 94.39 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 81.02 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 6.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subps. 4, 5, & 14; Minn. R. 7017.2025, subp. 3
RE-SETTING OF PRESSURE DROP RANGE LIMIT	hdr
Protocol for Re-Setting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be re-set, the re-set shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.	
Protocol for Re-Setting the Pressure Drop Range Limit, continued, The established Pressure Drop Range Limit shall be re-set as follows: - if the 3-hr average pressure drop recorded during the test is within the established range, it shall not be re-set and the established values remain the Pressure Drop Range Limit; - if the 3-hr average pressure drop is outside the range specified above, the range limit shall be re-set based upon the minimum and maximum pressure drop values exhibited during the performance test. The new minimum value for the range limit shall be half the lowest recorded reading and the new maximum value for the range limit shall be two times the highest recorded value. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit.	Minn. R. 7007.1500, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-38**

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 014 Dryer

GP 007 Fabric Filters

What to do	Why to do it
OPERATIONAL REQUIREMENTS (see GP 007 for additional requirements)	hdr
The Permittee shall meet the requirements of GP 007 as specified in this permit.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
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 97.14 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 94.39 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 81.02 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 6.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subps. 4, 5, & 14; Minn. R. 7017.2025, subp. 3
RE-SETTING OF PRESSURE DROP RANGE LIMIT	hdr
Protocol for Re-Setting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be re-set, the re-set shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.	
Protocol for Re-Setting the Pressure Drop Range Limit, continued, The established Pressure Drop Range Limit shall be re-set as follows: - if the 3-hr average pressure drop recorded during the test is within the established range, it shall not be re-set and the established values remain the Pressure Drop Range Limit; - if the 3-hr average pressure drop is outside the range specified above, the range limit shall be re-set based upon the minimum and maximum pressure drop values exhibited during the performance test. The new minimum value for the range limit shall be half the lowest recorded reading and the new maximum value for the range limit shall be two times the highest recorded value. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit.	Minn. R. 7007.1500, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-40**

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

Associated Items:

- EU 017 Dryer Output Conveyor
- EU 021 Bucker Elevator 2
- EU 022 Bucker Elevator Conveyor
- EU 023 Bucker Elevator 3
- EU 024 Bucker Elevator 4
- EU 025 Screen Feed Split Hopper
- EU 026 Screen 1
- EU 027 Screen 1 Split Hopper
- EU 028 20x40 Cross Conveyor
- EU 029 20x40 Screw 1
- EU 030 Screen 2
- EU 031 Screen 2 Split Hopper
- EU 032 20x40 Screw 2
- EU 033 Screen 3
- EU 034 30x50 Screw 1
- EU 035 40x70 Screw
- EU 036 Screen 4
- EU 037 30x50 Screw 2
- EU 038 Screen 5
- EU 039 30x50 Screw 3
- EU 040 Screen 1 and 2 Waste Screw
- EU 041 Waste Belt Conveyor
- EU 042 Waste Bin
- EU 043 20x40 Bin 1
- EU 044 20x40 Bin 2
- EU 045 20x40 Bin 3
- EU 046 30x50 Bin 1
- EU 047 30x50 Bin 2
- EU 048 30x50 Bin 3
- EU 049 40x70 Bin 1
- EU 050 40x70 Bin 2
- EU 051 40x70 Bin 3
- EU 052 Conveyor to Dry Storage
- EU 053 Bucket Elevator 5
- EU 054 Storage Silo 1
- EU 055 Storage Silo 2
- EU 056 Storage Silo 3
- EU 057 Reclaim Conveyor 1
- EU 058 Reclaim Conveyor 2
- EU 059 Reclaim Conveyor 3
- EU 060 Bin Bottom Conveyor 1
- EU 061 Bin Bottom Conveyor 2
- EU 062 Bin Bottom Conveyor 3
- EU 063 Collector Conveyor
- EU 064 Incline Conveyor

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-41 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Associated Items: EU 065 Rail Car Loadout Chute
 EU 066 Truck Loadout Chute
 GP 002 Equipment Subject to NSPS, Subpart OOO Vented from SV002 (with Capture Systems)
 GP 007 Fabric Filters

What to do	Why to do it
OPERATIONAL REQUIREMENTS (see GP 007 for additional 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 91.10 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 10 micron: greater than or equal to 74.83 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for PM < 2.5 micron: greater than or equal to 40.68 percent control efficiency	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 6.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. The Permittee shall record the pressure drop at least once every 24 hours when in operation.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
RE-SETTING OF PRESSURE DROP RANGE LIMIT	hdr
Protocol for Re-Setting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM/PM10/PM2.5 emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be re-set, the re-set shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.	
Protocol for Re-Setting the Pressure Drop Range Limit, continued, The established Pressure Drop Range Limit shall be re-set as follows: - if the 3-hr average pressure drop recorded during the test is within the established range, it shall not be re-set and the established values remain the Pressure Drop Range Limit; - if the 3-hr average pressure drop is outside the range specified above, the range limit shall be re-set based upon the minimum and maximum pressure drop values exhibited during the performance test. The new minimum value for the range limit shall be half the lowest recorded reading and the new maximum value for the range limit shall be two times the highest recorded value. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit.	Minn. R. 7007.1500, subp. 1
Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: FS 001 Blasting Process**Associated Items:** GP 001 Mining Operations

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Operating Hours: less than or equal to 2,600 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0110
OPERATIONAL REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total hours the item is used at the facility. This shall be based on written usage logs, non-resettable hour meters and flowmeters.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2, and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 57011.3350
Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following for the listed item: 1) The total hours of operation for the previous calendar month using the daily usage records. 2) The 12 month rolling sum of total hours of operations for the previous 12 month period by summing the monthly total hours of operation data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: FS 002 Backhoe**Associated Items:** GP 001 Mining Operations

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Operating Hours: less than or equal to 2,600 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total hours the item is used at the facility. This shall be based on written usage logs, non-resettable hour meters and flowmeters.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2, and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 7011.3350
Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following for the listed item: 1) The total hours of operation for the previous calendar month using the daily usage records. 2) The 12 month rolling sum of total hours of operations for the previous 12 month period by summing the monthly total hours of operation data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: FS 003 Bulldozer**Associated Items:** GP 001 Mining Operations

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Operating Hours: less than or equal to 500 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total hours the item is used at the facility. This shall be based on written usage logs, non-resettable hour meters and flowmeters.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2, and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 57011.3350
Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following for the listed item: 1) The total hours of operation for the previous calendar month using the daily usage records. 2) The 12 month rolling sum of total hours of operations for the previous 12 month period by summing the monthly total hours of operation data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: FS 004 Front End Loader w/Attached Rock Breaker**Associated Items:** GP 001 Mining Operations

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Operating Hours: less than or equal to 2,600 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total hours the item is used at the facility. This shall be based on written usage logs, non-resettable hour meters and flowmeters.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2, and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 57011.3350
Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following for the listed item: 1) The total hours of operation for the previous calendar month using the daily usage records. 2) The 12 month rolling sum of total hours of operations for the previous 12 month period by summing the monthly total hours of operation data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

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

07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 002

Subject Item: FS 005 Mine Front End Loader**Associated Items:** GP 001 Mining Operations

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Operating Hours: less than or equal to 2,600 hours/year using 12-month Rolling Sum	Title I Condition: To avoid classification as major source under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total hours the item is used at the facility. This shall be based on written usage logs, non-resettable hour meters and flowmeters.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2, and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 57011.3350
Monthly Recordkeeping. By the 15th of the month, the Permittee shall calculate and record the following for the listed item: 1) The total hours of operation for the previous calendar month using the daily usage records. 2) The 12 month rolling sum of total hours of operations for the previous 12 month period by summing the monthly total hours of operation data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-47 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: **FS 007 Mine Sand Stockpile**
Associated Items: GP 001 Mining Operations
 GP 010 Mine and Crusher Storage Piles

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

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: **FS 008 Grizzly Stockpile**

Associated Items: GP 010 Mine and Crusher Storage Piles

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

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: **FS 009 Wet Screen Storage Pile 1**

Associated Items: GP 010 Mine and Crusher Storage Piles

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

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

Subject Item: **FS 010 Wet Screen Storage Pile 2**

Associated Items: GP 010 Mine and Crusher Storage Piles

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

TABLE B: SUBMITTALS

B-1 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility
Permit Number: 13900120 - 002

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

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

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

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

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

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

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

Send any application for a permit or permit amendment to:

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

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.

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**B-2** 07/27/12

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120 - 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	EU014
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. Submit the name and number of each unit and the actual date of initial startup each unit.	GP008
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. The notification shall include a description of the equipment, equipment manufacturer, and serial number of the equipment, if available. For those units that startup in a single day, a single notification shall be submitted.	GP002
Notification of the Date Construction Began	due 60 days after Start Of Construction (or as soon as practicable). Submit the information specified in 40 CFR Section 60.15(d)(1) through (7).	EU014
Notification	due 15 days after Initial Startup The notification shall include a description of the equipment, equipment manufacturer, and serial number of the equipment, if available.	GP005
Notification	due 15 days after Initial Startup The notification shall include a description of the equipment, equipment manufacturer, and serial number of the equipment, if available. For those units that startup in a single day, a single notification shall be submitted.	EU005, GP004
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12 month, 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU005
Testing Frequency Plan	due 60 days after Initial Performance Test for Opacity. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12 month, 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP002, SV001, SV002
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 (including back half condensables). The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12 month, 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV001, SV002
Testing Frequency Plan	due 60 days after Initial Performance Test for PM2.5. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12 month, 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV001, SV002
Testing Frequency Plan	due 60 days after Initial Performance Test for Total Particulate Matter. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on 12 month, 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP002, GP004, SV001, SV002

APPENDIX MATERIAL

Facility Name: Great Plains Sand LLC Processing Facility

Permit Number: 13900120-002

I. Insignificant Activities and Applicable Requirements

The table below lists the insignificant activities that are currently at the facility and their associated general applicable requirements.

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(B)	<p>fuel burning equipment with a capacity less than 420,000 Btu/hour, but only if the total combined capacity of all fuel burning equipment at the stationary source with a capacity less than 420,000 Btu/hour is less than or equal to 1,400,000 Btu/hour.</p> <p><i>(3 natural gas/ propane units, each less than 200,000 Btu/hr)</i></p>	Minn. R. 7011.0515
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> <ol style="list-style-type: none"> 1. 4,000 lbs/year of carbon monoxide; 2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone; and 3. 1,000 tons/year of CO₂e <p><i>The facility identifies the following insignificant activities:</i></p> <p>IA001 Wet Screen IA002 Wet Screen Overs Chute IA003 Wet Screen Overs Stacker IA004 Wet Screen Hopper IA005 Wet Plant Primary Cyclone IA006 Wet Plant 8x8 Density Separator IA007 Wet Plant 4-Cell Attrition Scrubber IA008 Wet Plant 40 Mesh Cyclone IA009 Wet Plant 5x12 Dewatering Screen IA010 Wet Plant 40 Mesh Jump Conveyor IA011 Wet Plant 40 Mesh Transfer Conveyor IA012 Wet Plant 40 Mesh Stacker IA013 Wet Plant Secondary Cyclone IA014 Wet Plant 10x10 Density Separator IA015 Wet Plant 2-Cell Attrition Scrubber IA016 Wet Plant 40x70 Cyclone IA017 Wet Plant 4x10 Dewatering Screen #1</p>	<p>40 CFR Part 60, Subpart OOO Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 40 CFR Part 60, Subpart OOO 40 CFR Part 60, Subpart OOO 40 CFR Part 60, Subpart OOO Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715 40 CFR Part 60, Subpart OOO</p>

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
	IA018 Wet Plant 40x70 Jump Conveyor IA019 Wet Plant 40x70 Transfer Conveyor IA020 Wet Plant 40x70 Stacker IA021 Wet Plant Waste Cyclone IA022 Wet Plant 4x10 Dewatering Screen #2 IA023 Clarifier IA024 Wet Plant Belt Press Belt IA025 Wet Plant Transfer Conveyor IA026 Wet Product Loadout Conveyor IA027 Dragline IA028 Dredge IA029 Waste Bin Vent	40 CFR Part 60, Subpart OOO 40 CFR Part 60, Subpart OOO Minn. R. 7011.0715 Minn. R. 7011.0715 40 CFR Part 60, Subpart OOO Minn. R. 7011.0715 40 CFR Part 60, Subpart OOO 40 CFR Part 60, Subpart OOO 40 CFR Part 60, Subpart OOO Minn. R. 7011.0715 Minn. R. 7011.0715 Minn. R. 7011.0715

II. Fugitive Dust Control Plan



FugitiveDustPlan04_
25_2012.pdf

Fugitive Dust Control Plan

Great Plains Sand, LLC
Shakopee, MN

Wenck File #2771-01

Prepared for:

GREAT PLAINS SAND, LLC
15870 Johnson Memorial Drive
Jordan, MN 55352

Prepared by:

WENCK ASSOCIATES, INC.
1802 Wooddale Drive
Suite 100
Woodbury, Minnesota 55125
(651) 294-4580

February 2012
(Revised April 2012)



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APPENDICES

A	Site Layout
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1.0 Introduction

Great Plains Sand, LLC (Great Plains) submitted a State Air Permit Application to the Minnesota Pollution Control Agency on February 8, 2012 for the construction and operation of an industrial sand processing facility to be located in Shakopee, Minnesota. The application addressed operations from the mine and the processing facility.

This Plan has been developed to control emissions from drilling and blasting, backhoe operation, bulldozing, outdoor sand piles, outdoor material handling, crushing, truck loading, truck hauling and employee vehicle traffic at the proposed mine and processing facility. Compliance with the control of particulate emissions will be maintained by Great Plains through regular observations of fugitive dust conditions attributable to Great Plain's activities and application of reasonable mitigation measures. At daily intervals, and upon receiving a complaint, Great Plains will investigate fugitive dust conditions. Great Plain's observation of fugitive dust conditions and valid dust complaints are to be addressed by reasonable and appropriate mitigation measures. Great Plains shall record its observations and mitigation measures, as well as any complaints received and mitigation measures taken in response to such complaints.

The designated on-site contact for purposes of compliance with this Plan is listed below:

Mr. Doug Wermerskirchen Operations Manager Great Plains Sands, LLC Phone: (952) 917-9802

It is assumed that the fugitive particulate emissions control season is approximately March 15th through November 21st of each calendar year, and also during non-freezing weather conditions during the remainder of the calendar year.

2.0 Fugitive Particulate Emissions Sources

Sources of fugitive particulate emissions at the mine and processing facility include drilling and blasting, backhoe and bulldozer operation, rock breaking, outdoor sand storage piles, uncontrolled material handling and transfer, crushing, and vehicle traffic on the unpaved roads. Fugitive dust will be controlled in order to prevent significant exposure of particulate matter to the general public. The sources of fugitive particulate emissions are described in this section.

2.1 DRILLING AND BLASTING

In situations where the sand-bearing geological formation at the mine is tightly cemented, it may be necessary to utilize drilling and blasting to make the sand more amenable to removal. Blasting, using an explosive agent, may be conducted frequently during the mining season. Fugitive emissions will be generated during the drilling and blasting activities.

2.2 BACKHOE AND BULLDOZING OPERATIONS

A backhoe will be utilized at the mine to transfer sand from the pit to the haul trucks or to the sand storage pile. The bulldozer and/or backhoe will be utilized during the overburden removal and berm construction.

2.3 ROCK BREAKING

It may be necessary for Great Plains to utilize a rock breaker in order to break up the large chunks of rock at the mine prior to processing in the facility. The rock breaker will be attached

to a front-end loader and moved as necessary around the current phase of the mine. Fugitive emissions will be generated during the operation of the rock breaking activities.

2.4 SAND STORAGE PILES

There are six outdoor sand storage piles at the Great Plains site that are labeled in Figure 1, found in Appendix A. The excavated sand from the mine can be stockpiled in a storage pile located at the mine. After being transferred to the facility, the sand can be fed directly to the grizzly or stockpiled in a surge pile of raw material located outside the building. This stockpile will contain approximately 20,000 cubic yards of raw material which is fed into a pre-screening and crushing unit. This pre-screening and crushing unit generates two small stockpiles (roughly 3,500 cubic yards each) which are fed to the wet plant. After processing, the material will be stockpiled outside using two 150' radial stackers. These stockpiles will contain approximately 100,000 cubic yards of material each, reaching heights of 40-50 feet. The maximum stockpile volumes will only be reached in the fall of the year to provide a supply of washed material to the dryer on a year round basis. By the spring, these stockpiles will be significantly depleted and then replenished again over the course of the subsequent summer and fall. Wind erosion may be a source of fugitive particulate emissions throughout the year. Fugitive particulate emissions from the sand storage piles are also potentially generated from the stacking and reclaiming of sand to and from the pile(s).

2.5 UNCONTROLLED MATERIAL HANDLING AND TRANSFER

Material handling and transfer operations with the potential to generate fugitive particulate emissions include transfer of sand via the front-end loaders and the conveyance of sand from one piece of equipment to the next (conveyors, belts, feeders, etc.). The majority of these material transfer points transfer points will occur at the mine and the processing facility prior to the dryer. Because the natural moisture content of the sand will be approximately 2%, fugitive emissions

from the transfer points are anticipated to be very minimal based on information outlined in AP-42 Chapter 11.19.2 regarding the processing of wet sand.

2.6 JAW CRUSHER EQUIPMENT

The sand deposit being mined is composed of agglomerated grains of sand. The majority of this material is broken down to individual grains of sand during blasting or by the grizzly feeder. Great Plains may utilize a jaw crusher to further deagglomerate this material. The crusher may generate fugitive particulate emissions; although significant emissions are not anticipated based on the natural moisture content of the material.

2.7 ON-SITE VEHICLE TRAFFIC TRAVELING ON UNPAVED ROADS

All roads at the facility will be unpaved. These roads include the haul road from the mine to the processing plant, the front-end loader routes at the mine and the processing plant and the product loadout and employee traffic road.

Included in Appendix A is a site-layout illustrating the various sources of fugitive emissions as described above.

3.0 Control Measures for Fugitive Particulate Emissions

The primary control measures for fugitive particulate emissions from various Great Plains fugitive dust sources are described in this section.

3.1 DRILLING AND BLASTING

Great Plains will conduct drilling and blasting up to frequently during the mining season. Blasting activities will be a relatively small source of fugitive emissions.

3.1.1 Emission Control

For fugitive dust control, the space between the explosive and the top of the drilled hole will be filled with a stemming material. Stemming material is an inactive material used to backfill a hole for the purpose of containing the explosive energy. The stemming material also acts to minimize fugitive emissions from the blast. The drilling equipment that the facility is planning to purchase comes equipped with a wet suppression system or other equivalent control. Additionally, the natural moisture content of the sand will aid in minimizing fugitive emissions.

3.2 BACKHOE AND BULLDOZER OPERATION

A backhoe will be utilized at the mine to transfer sand from the pit to the haul trucks or to the sand storage pile. The bulldozer and/or backhoe will be utilized during the overburden removal and berm construction. Emissions from these operations are not expected to be significant.

3.2.1 Emission Control

The natural moisture content of the sand and/or overburden serves as the best control for backhoe and bulldozer operations. If necessary, additional dust control will occur through use of watering techniques.

3.3 ROCK BREAKING

Great Plains may utilize a rock breaker in order to break up the large chunks of rock at the mine prior to processing in the facility. The rock breaker will be attached to a front-end loader and moved as necessary around the current phase of the mine. Fugitive emissions from this operation are not expected to be significant.

3.3.1 Emission Control

The natural moisture content of the sand serves as the best control for rock breaking operations. If necessary, additional dust control will occur through use of watering techniques.

3.4 SAND STORAGE PILES

Great Plains stores sand in outdoor piles throughout the year. Sand is transferred to and from the storage piles by a front-end loader for all piles prior to the wet plant and a product stacker after the wet plant. The natural moisture content of the four storage piles prior to the wet plant is greater than two percent, while the sand dropping to the two piles post wet plant is completely saturated. Because of the saturated sand, there are negligible emissions from the stacking conveyor drop to the piles. The sand's moisture content in the piles then drain down to five percent prior to being fed into the dryer. Wind erosion is anticipated to be the largest source of fugitive emissions from the sand storage piles.

3.4.1 Emission Control

Wind erosion is minimized when the exterior of the pile is kept damp. The natural moisture content of the sand will aid in reducing fugitive dust emissions. Additionally, it is estimated that there are over 105 days that are naturally defined “wet” (an average number of days with precipitation greater than or equal to 0.25 mm or 0.01 inches based on precipitation data) at the location of the mine and processing facility. During exceptionally dry periods or upon any significant amounts of fugitive dust, the sand piles will be watered to minimize the effect of wind erosion. An exception will be made for freezing conditions that would present a safety hazard to workers or vehicles.

In accordance with MPCA procedures Great Plains Sands will perform on-site visible emission checks at least once daily to verify that visible emissions are at or below 10 percent. Visible emissions do not signal noncompliance with applicable requirements, but visible emissions over 10% will trigger additional watering of the piles.

3.5 MATERIAL HANDLING AND TRANSFER

Material will be transported from the mine, storage piles and wet plant via feeders, belts, conveyors, etc. Material handling and transfer points are not anticipated to result in significant emissions as the natural sand moisture content will be 2 percent or greater.

3.5.1 Emission Control

The natural moisture content of the sand serves as the best control for material handling operations. If required for opacity limitations, additional dust control will occur through use of water or suitable chemicals.

Additionally, as a preventative control measure, Great Plains will clean up spills of commodities on the facility property to reduce fugitive particulate emissions. It should also be noted that 40 CFR Part 60, Subpart OOO (NSPS OOO) applies to the conveyors and other transfer equipment following the crusher and therefore will be subject to opacity limits as defined by the rule.

3.6 JAW CRUSHER

Before being processed in the facility, the incoming sand from the mine will be passed through a grizzly feeder and then a jaw crusher to process a small portion of the sand that is not deagglomerated during blasting or by the grizzly feeder. The crusher process will be a source of fugitive emissions.

3.6.1 Emission Control

The crusher will process sand at or near the moisture content at which it was mined. Additionally, the crusher will only deagglomerate the sand. No actual “crushing” of the sand grains will occur. Therefore, no new “dry” surfaces will be exposed during the process. Although it is anticipated that the natural moisture content of the material will be sufficient to prevent fugitive dust emissions, a water spray system to control fugitive dust emissions during loading, conveying, and crushing to minimize visible emissions will be utilized, if necessary.

It should also be noted that NSPS OOO applies to jaw crusher and therefore will be subject to opacity limits as defined by the rule.

3.7 ON-SITE VEHICLE TRAFFIC TRAVELING ON UNPAVED ROADS

All roads at the facility will be unpaved and the surfaces of the roads are composed of sand. Truck and heavy equipment traffic over these surfaces is the main sources of fugitive dust from the unpaved roads. There are several vehicle routes that contribute to the fugitive emissions. The facility will utilize a haul truck to transfer sand from the mine to the processing plant. The

route of the haul truck will be dependent on the current phase of the mine. There will also be two main front-end loader routes at the facility and two at the mine, along with an employee and product loadout route into and out of the facility.

3.7.1 Emission Control

In order to reduce emissions from unpaved roads, Great Plains Sand has proposed the application of water to control these emissions from the site. This is a standard method for controlling air emissions from these types of sources.

The control efficiency of watering is dependent on the vehicle traffic on the route, the intensity of the application of the water and the frequency of the watering. In order to achieve the appropriate control efficiencies for permitting purposes, it will be necessary for the facility to water the main haul truck route and the front-end loader routes at the mine and the processing facility once per day. The product loadout and employee traffic route will need to be watered once per week. All routes have been proposed at an application intensity of 0.10 gallon per square foot. It is also proposed that any precipitation of greater than 0.16 inches will substitute for one day of watering. This precipitation will be measured using local national weather service data or an on-site rainfall gauge. In addition, in accordance with MPCA procedures, Great Plains will perform on-site visible emission checks at least once daily to verify that visible emissions are at or below 10 percent. If visible emissions are observed, the facility will investigate the condition and take appropriate corrective action to reduce the visible emissions. Visible emissions do not signal noncompliance with applicable requirements, but visible emissions over 10% will trigger additional watering of the roads. The observation of fugitive emissions could trigger additional watering – over and above the levels identified above.

To demonstrate compliance with this procedure, Great Plains Sand will be required to maintain records of watering frequency and intensity. Great Plains will keep daily records of water truck use and documentation of meteorological conditions. As noted above, watering will not occur on “wet” days (> 0.16 inches of precipitation) unless visible emissions from the roads are observed to be above 10% by the visible emissions reader or on days that unpaved roads are not being used (e.g., occasional and seasonal mine closures).

4.0 Recordkeeping

Great Plains will maintain records to demonstrate compliance with this fugitive dust control plan. Mitigation measures will be taken as needed in order to prevent avoidable amounts of particulate matter from becoming airborne.

If fugitive dust complaints are received, Great Plains will investigate the merit of the complaint, and take appropriate and reasonable measures as soon as practical. Great Plains will keep a record of complaints received and mitigation measures taken.

Appendix A

Site Layout

Great Plains Sand, LLC Processing
Facility - Fugitive Dust Emission
Sources

Unpaved Product Loadout and
Employee Traffic

40 x 70 Concentrate
Storage Pile

40+ Mesh Storage Pile

Wet Screen Storage Pile #1

Wet Screen Storage Pile #2

Grizzly Stockpile

NOTE: Processing Facility Front End Loader
Routes, Grizzly Feeder, Jaw Crusher and
Various Material Handling and Transfer
Points will be located anywhere within area
marked in orange.

Mine Stockpile

NOTE: Blasting and Drilling, Backhoe and
Bulldozing Operations, Rock Breaking, Mine
Front End Loader Routes, and Unpaved Haul
Roads will be located anywhere within area
marked in red depending on the phase of the
mine.

GREAT PLAINS SAND, LLC

Site Layout - Fugitive Sources

 **Wenck**
Engineers • Scientists

1802 Wooddale Drive
Suite 100
Woodbury, MN 55125

FEB 2012

GI-03 - Fig. 2