

AIR EMISSION PERMIT NO. 09100060- 003
Major Amendment

IS ISSUED TO

BioFuel Solutions

BUFFALO LAKE ENERGY LLC
1125 Bixby Road.
Fairmont, Martin County, MN

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

This permit amendment supersedes Air Emission Permit No. 09100060-003 and authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn.

R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit. Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the State Implementation Plan under 40 CFR § 52.1220 and as such as are enforceable by U.S. Environmental Protection Agency Administrator or citizens under the Clean Air Act.

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

Operating Permit Issue Date: August 24, 2006

Major Amendment Issue Date: April 9, 2009

Expiration Date: August 24, 2011– Title I Conditions do not expire.

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

for Paul Eger
Commissioner
Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action
Total Facility Operating Permit	9/16/2005	001
Major Amendment	4/21/2008	002
Major Amendment	5/23/2008	003

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Amendment Description

Table A: Limits and Other Requirements

Table B: Submittals

Appendices

- I. Insignificant Activities
- II. Fugitive Dust Control Plan
- III. Modeling Inputs
- IV. Truck Traffic/ Fence Diagram
- V. Daily Sweeping and Vacuuming Road Segments
- VI. HAP Performance Testing

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:

Buffalo Lake Energy, LLC is a fuel-grade ethanol production facility in Fairmont, Minnesota. The facility has a design capacity of 118 million gallons of undenatured ethanol. The plant will also produce Distillers Dried Grains and Solubles (DDGS) for animal feed as a by-product of the ethanol production process. Emission sources at the facility include fermentation, distillation, DDGS handling and drying, combustion sources, storage tanks, production loadout, and fugitive sources such as grain handling and dust from haul roads.

The ethanol facility is located adjacent to an existing Cargill grain elevator (permit no. 09100061-002). The grain for the ethanol facility will be provided from and stored at the Cargill facility. The Cargill grain elevator was classified as a Country Grain Elevator according to the May 1999 MPCA Air Quality Rules and Permitting for the Grain and Feed Industry fact sheet. A conveying system will transport the grain from the Cargill facility to the hammermilling process at the facility. The two facilities are considered a single source for PSD purposes but they are being permitted separately.

The primary emissions are Volatile Organic Compounds (VOC), Particulate Matter (PM), Particulate Matter less than 10 um in size (PM₁₀), Nitrogen oxides (NO_x), and Carbon Monoxide (CO). VOCs are emitted by fermentation, distillation, DDGS drying, wetcake production and storage, ethanol loading, and VOC liquid storage and piping. PM/PM₁₀ is emitted by DDGS handling and drying, corn receiving and handling, and vehicle traffic. NO_x and CO are emitted by combustion sources.

Air pollution control equipment includes fabric filters (CE004 to CE009 and CE015 to CE017), the Wet Scrubber (CE018), Multiclones (CE019 and CE021) and the Thermal Oxidizers (CE020 and CE022). The scrubber controls emissions from the fermentation and distillation units including the beer well, evaporators and centrifuges; and the thermal oxidizer controls emissions from the Dryers, distillation process and DDGS coolers. A flare is used to control emissions from truck and rail ethanol loadout. Baghouses control PM/PM₁₀ from the corn and DDGS handling and storage systems and the Truck/Rail Loadout area. There are five internal floating roof tanks for ethanol, denaturant, and denatured ethanol. Emissions from process valves and piping will be controlled through an inspection and maintenance program.

Permit Action 002

This permit action updates the permit for design changes made during construction (deletion of three fabric filter baghouses, CE001, CE002, and CE003).

CE001 and CE002 were originally intended to control dust from a conveyor that moves corn from the Cargill storage facility into the Buffalo Lake Energy facility. The installed conveyor is a sealed design from which dust cannot escape. CE003 was to control dust from a bulkweigher, which has been deleted from the design.

The permit action also corrects the list of baghouses in Group GP001 by deleting CE010 through CE014. These baghouses were deleted from the design prior to issuance of the first permit but were inadvertently left in this group. These baghouses would have controlled dust from DDGS handling and loadout. DDGS dust is now controlled by CE015, CE016, and CE017.

This permit action also includes a change requested through an administrative amendment application for use of an access restriction plan in place of fencing.

Permit Action 003

This permit action updates the permit for the allowance of an increase in the PM₁₀ grain loading limit for facility baghouses to .003 grains per dry standard cubic foot.

This permit action updates the permit for the allowance of an increase in truck traffic to 250 trucks per day during the months of December through March.

This permit action updates the permit for the allowance of an increase in the NO_x emission limit on the TO/HRB (SV019) to 20.93 pounds per hour.

This permit action updates the permit for the allowance of the addition of two new baghouses to the DDGS handling system (CE024 and CE025).

This permit action updates the permit for the allowance of a reduction of the cooling tower circulating flow rate to 45,000 gallons per minute.

This permit action updates the permit for the allowance of a change in the tank sizes from the original design specifications.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC
 Permit Number: 09100060 - 003

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

Subject Item:	Total Facility
What to do	Why to do it
OPERATIONAL LIMITS	hdr
Production: less than or equal to 118,000,000 gallons per year using 12-month rolling sum of ethanol (200-proof, prior to addition of denaturant).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Process Throughput: less than or equal to 1223704 tons/year using 12-month Rolling Sum of corn, based on a 56 pound bushel. That is equivalent to 43,703,704 bushels per year.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of grain received at the Buffalo Lake Energy LLC facility.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21; to avoid classification as a major source under 40 CFR Section 70.2
Monthly Recordkeeping - Grain Received. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total tonnage of grain for the previous calendar month using the daily usage records. 2) The tonnage for the previous month. 3) The 12 month rolling sum solids usage for the previous 12 month period by summing the monthly grain tonnage data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
Process Throughput: less than or equal to 360000 tons/year using 12-month Rolling Sum of Distillers Dried Grains (DDGS) on a dry basis.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
SOURCE-SPECIFIC REQUIREMENTS	hdr
Comply with Fugitive Emission Control Plan: 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.	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
Follow the Odor Action Plan which is attached to this permit.	Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

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 Test Notifications and Submittals: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
RECORDKEEPING	hdr
When 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. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. For nonexpiring permits, 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 stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.	Minn. R. 7007.1200, subp. 4
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
REPORTING/SUBMITTALS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>	<p>Minn. R. 7019.1000, subp. 3</p>
<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.</p>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. 	<p>Minn. R. 7019.1000, subp. 1</p>
<p>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.</p>	<p>Minn. R. 7007.1150 through Minn. R. 7007.1500</p>
<p>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).</p>	<p>Minn. R. 7007.1400, subp. 1(H)</p>
<p>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.</p>	<p>Minn. R. 7019.3000 through Minn. R. 7019.3100</p>
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	<p>Minn. R. 7002.0005 through Minn. R. 7002.0095</p>
<p>The Permittee must submit a Risk Management Plan (RMP) under 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. An initial RMP must be submitted no later than the latest of the following dates: 1) June 21, 1999; 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or 3) The date on which a regulated substance is first present above a threshold quantity in a process. A full update and resubmission of the RMP is required at least once every five years. The five-year anniversary date is reset whenever your facility fully updates and resubmits their RMP. Submit RMPs to the Risk Management Plan Reporting Center, P.O. Box 1515, Lanham-Seabrook, Maryland 20703-1515. RMP information may be obtained at http://www.epa.gov/swercepp or by calling 1-800-424-9346.</p>	<p>40 CFR pt. 68</p>
<p>MODELING REQUIREMENTS</p>	<p>hdr</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

<p>Parameters Used in Modeling: The parameters used in the modeling performed for an Environmental Assessment Worksheet under Minn. R. ch. 4410 and for determining emission and/or operational limits, if applicable for this facility are listed in Appendix III of this permit. If the Permittee intends to change any of these parameters, the Permittee must submit the revised parameters to the Commissioner and receive written approval before making any changes. The revised parameter information submittal must include, but is not limited to: the locations, heights and diameters of the stacks; locations and dimensions of nearby buildings; velocity and temperatures of the gases emitted; and the emission rates. The plume dispersion characteristics due to the parameter revisions must equal or exceed the dispersion characteristics modeled for this permit, and the Permittee shall demonstrate this in the proposal.</p>	<p>Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2</p>
<p>Parameters Used in Modeling: The stack heights, stack diameters, air flow rates, and exhaust gas temperatures used in the modeling performed for the PSD analysis for this permit are listed in Appendix III of this permit. The Permittee must submit to the Agency for approval any revisions of these parameters that are caused by a physical change or change in the method of operation of the facility and must wait for a written approval before making such changes. The information submitted must include, at a minimum, the locations, heights and diameters of the stacks, locations and dimensions of nearby buildings, the velocity and temperature of the gases emitted, and the PM10 emission rates. The plume dispersion characteristics after the proposed revisions must be equivalent to or better than the dispersion characteristics used in the model dated March 13, 2006. The Permittee shall demonstrate this equivalency in the proposal.</p>	<p>Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000</p>
<p>If the information submitted does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must remodel.</p> <p>For any physical change to or change in the method of operation of a stack emitting PM10 or for any increase in PM10 emissions (whether or not the increase would require a permit amendment of any type), the Permittee must remodel.</p> <p>For changes that do not involve any increase to any emission rate or any emissions from a new emission point, this proposal must be submitted as soon as practicable, but no less than 60 days before beginning actual construction of the modification, stack, or associated emission unit(s).</p>	<p>Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000</p>
<p>For changes involving increases in emission rates or emissions from a new emission point and that require a minor permit amendment, the proposal and/or required modeling analysis must be submitted as soon as practicable, but no less than 60 days before beginning actual construction of the modification, stack, or associated emission unit(s).</p> <p>For changes involving increases in emission rates or emissions from a new emission point and that require a permit amendment other than a minor amendment, the proposal and/or modeling analysis must be submitted with the permit application.</p>	<p>Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000</p>
<p>The Permittee shall install fencing around the facility. In areas where fencing is not permissible by setbacks, right-of-ways, safety concerns, or clearances, the Permittee will use signage and patrolling to sufficiently restrict public access to the property outlined as fenced in the dispersion modeling.</p> <p>The Permittee shall maintain an Access Restriction Plan onsite describing physical and active barriers sufficient to restrict public access to the property as delineated in the most recent compliant dispersion modeling analysis.</p>	<p>Minn. R. 7009</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: GP 001 Baghouses

- Associated Items:** CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 005 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 008 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 015 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 016 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 017 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 024 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
 CE 025 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
POLLUTION CONTROL REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 99 percent control efficiency . The Permittee shall operate and maintain the fabric filters such that they achieve 99% overall control efficiency. This limit applies to each fabric filter individually.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency . The Permittee shall operate and maintain the fabric filters such that they achieve 99% overall control efficiency. This limit applies to each fabric filter individually.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
OPERATIONAL LIMITS	hdr
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 6 inches of water column , unless a new range is set by permit reopening or permit amendment, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7017.2025, subp.
Visible Emissions: The Permittee shall check the fabric filter stacks for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.	Title I Condition: Monitoring for Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; to avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7011.0080
OPERATIONAL REQUIREMENTS	hdr
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall operate and maintain the fabric filters 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. Vent emissions from all units controlled by the baghouses in GP001, through the baghouses at all times that the associated units are in operation.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the fabric filter according to the control equipment manufacturer's specifications and/or in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-6

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none">- 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. <p>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.</p>	Minn. R. 7007.0800, subp. 4, 5, and 14
<p>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.</p>	Minn. R. 7007.0800, subp. 2 and subp. 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: GP 003 Dryers

Associated Items: EU 056 DDGS Dryer A

EU 058 DDGS Dryer B

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Fuel Burned: Natural gas only	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Operating limits based on performance tests: Limits set following a performance test for dryers may include a production limit (wetcake feedrate or beer feedrate as a surrogate), syrup feedrate, and dryer temperature.	Minn. R. 7017.2025, subp. 3
When a shutdown or breakdown of either thermal oxidizer occurs, the Permittee shall stop wetcake feed to the dryer. The Permittee may continue operation of the dryer only as long as necessary to empty material already in the dryer.	Title I Condition: to avoid major source classification 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
POLLUTION CONTROL REQUIREMENTS	hdr
Vent all emissions to the thermal oxidizer (CE020 and CE022).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
The Permittee shall operate and maintain each dryer 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.	Minn. R. 7007.0800, subp. 14
PROCESS MONITORING	hdr
Inspect quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and subp. 14
Inspect monthly or as required by manufacturing specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and subp. 14
Calibrate gauges annually or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and subp. 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: GP 004 Thermal Oxidizer with Heat Recovery Boiler

- Associated Items:**
- EU 011 Slurry Tank 1
 - EU 012 Liquefaction Tank 1
 - EU 013 Yeast Tank 1
 - EU 014 Yeast Tank 2
 - EU 015 Process Condensate Tank
 - EU 016 Beer Column 1
 - EU 017 Beer Column 2
 - EU 018 Stripper 1
 - EU 019 Stripper 2
 - EU 020 Rectifier 1
 - EU 021 Rectifier 2
 - EU 022 Evaporator 1
 - EU 023 Evaporator 2
 - EU 024 Syrup Tank
 - EU 025 Centrifuge 1
 - EU 026 Centrifuge 2
 - EU 027 Centrifuge 3
 - EU 028 Centrifuge 4
 - EU 029 Centrifuge 5
 - EU 030 Centrifuge 6
 - EU 031 Centrifuge 7
 - EU 032 Centrifuge 8
 - EU 033 Molecular Sieve 1
 - EU 034 Molecular Sieve 2
 - EU 035 Molecular Sieve 3
 - EU 036 Molecular Sieve 4
 - EU 037 200 Proof Condenser
 - EU 038 200 Proof Condenser
 - EU 057 Thermal Oxidizer/Heat Recovery Generator 1
 - EU 059 Thermal Oxidizer/Heat Recovery Generator 2

What to do	Why to do it
SUBPART Db REQUIREMENTS	hdr
Nitrogen Oxides: less than or equal to 0.10 lbs/million Btu heat input using 30-day Rolling Average	40 CFR 60.44b(a)(1)(i); Minn. R. 7011.0565
The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.	40 CFR 60.48b(b)(1); Minn. R. 7011.0565
The Permittee subject to the nitrogen oxides emission limit under 40 CFR 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in 40 CFR Part 60, appendix B.	40 CFR 60.49b(b); Minn. R. 7011.0565

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

The Permittee shall record and maintain records of the amounts of natural gas combusted during each day and calculate the annual capacity factor individually for natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.	40 CFR 60.49b(d) Minn. R. 7011.0565
OPERATIONAL REQUIREMENTS	hdr
Temperature: greater than or equal to 1400 degrees F using 3-hour Rolling Average as a 3-hour rolling average at the combustion chamber outlet, unless a new limit 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 limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the 3-hour rolling average temperature is below the minimum temperature limit, the VOC used during that time shall be considered uncontrolled until the average temperature is above the minimum temperature limit. This shall be reported as a deviation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds: greater than or equal to 98.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Fuel Burned: Natural gas only	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Vent all emissions from DDGS Dryers (EU 056 and EU 058) and DDGS Coolers to the Thermal Oxidizers/Heat Recovery Boilers (EU 057 and EU 059)	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
The Permittee shall operate and maintain the thermal oxidizer any time that any process equipment controlled by the thermal oxidizer is in operation 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. The Permittee shall document periods of non-operation of the control equipment. Vent emissions from all units controlled by the thermal oxidizers EU057 and EU059, through the thermal oxidizers at all times that the associated units are in operation.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200, Minn. R. 7007.0800, subp. 2 and 14
MONITORING REQUIREMENTS	hdr
The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The thermocouple must be installed, in use, and properly maintained whenever operation of the thermal oxidizer is required. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature.	Minn. R. 7007.0800, subp. 4 and 5
Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum 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 thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14
Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.	Minn. R. 7007.0800, subp. 4 and 5
Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14
Annual Calibration: The Permittee shall calibrate the temperature monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 4, 5, and 14
RECORDKEEPING AND REPORTING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings for the combustion chamber.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
CONTINUOUS MONITORING REQUIREMENTS	hdr
CEMS Installation: Install NOx and CO CEMS.	Minn. R. 7017.1006
Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.	Minn. R. 7017.1040, subp. 1
CEM Certification Test: due 60 days after achieving maximum capacity but not later than 180 days after startup, or 90 days after the due date of the first excess emissions report, which ever is more stringent.	40 CFR Section 40 CFR Section 60.8(a); 40 CFR Section 60.13(b); Minn. R. 7017.1050, subp. 1
CEMS Certification Test Plan: due 30 days before CEMS Certification Test.	40 CFR Section 60.7(a)(5); Minn. R. 7017.1060, subp. 1 & 2
CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 3
CEMS Certification Test Report: due 45 days after CEMS Certification Test	Minn. R. 7017.1080, subp. 1, 2, & 4; 40CFR 60.13(c)(2)
CEMS Certification Test Report - Microfiche or CD Copy: due 105 days after CEMS Certification Test.	Minn. R. 7017.1080, subp. 3
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEMS certification test. A CGA is not required during any calendar quarter in which a RATA was performed. The initial CGA must be performed within 80 days following certification of the CEMS. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR pt. 60, Appendix F, section 5.1.2.	40 CFR pt. 60, Appendix F, section 5.1.2; Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test . A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart according to 40 CFR pt. 60, Appendix F, section 5.1.1.	40 CFR pt. 60, Appendix F, section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA)) . <When subject to Appendix F>	Minn. R. 7017.1180, subp. 2
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	Minn. R. 7017.1090, subp. 1
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.1130
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: GP 005 Internal Floating Roof Tanks

Associated Items: TK 001 200 Proof Ethanol

TK 002 200 Proof Ethanol

TK 003 Denaturant

TK 004 Denatured Ethanol

TK 005 Denatured Ethanol

What to do	Why to do it
POLLUTION CONTROL REQUIREMENTS	hdr
The storage vessels shall be equipped with a fixed roof in combination with an internal floating roof meeting the requirements of 40 CFR Section 60.112b(a)(1).	40 CFR Section 60.112b(a); Minn. R. 7011.1520(C)
Internal Floating Roof Seal Requirement: Each internal roof shall be equipped with one of the closure devices between the wall of the storage vessel and the edge of the internal floating roof as described in Section 60.112b(a)(1)(ii).	40 CFR Section 60.112b(a)(1)(ii); Minn. R. 7011.1520(C)
MONITORING REQUIREMENTS	hdr
Inspection - Prior to initial fill of tanks: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric; or defects in the internal floating roof, or both, the Permittee shall repair the items before filling the storage vessel.	40 CFR Section 60.113b(a)(1); Minn. R. 7011.1520(C)
Inspection - Annual: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every twelve (12) months after initial fill as required by Section 60.113b(a)(2).	40 CFR Section 60.113b(a)(2) and (4); Minn. R. 7011.1520(C)
Inspection - Tank Empty and Degassed: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the tank is emptied and degassed as required by Section 60.113b(a)(4). In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years.	40 CFR Section 60.113b(a)(2) and (4); Minn. R. 7011.1520(C)
RECORDKEEPING REQUIREMENTS	hdr
Keep a record of each inspection performed as required by 40 CFR Section 60.113b(a). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings.)	40 CFR Section 60.115b(a)(2); Minn. R. 7011.1520(C)
Recordkeeping: Maintain records showing the dimensions of each tank and an analysis showing tank capacity.	40 CFR Section 60.116b(c); Minn. R. 7011.1520(C)
Recordkeeping: Maintain records of the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period, calculated as described in 40 CFR Section 60.116b(e).	40 CFR Section 60.116b(c); Minn. R. 7011.1520(C)
REPORTING REQUIREMENTS	hdr
Notification: Notify the Commissioner in writing at least 30 days prior to the filling or refilling of each tank for which an inspection is required by 40 CFR Section 60.113b(a)(1) and (a)(4) to afford the Commissioner the opportunity to have an observer present. If the inspection required by 40 CFR 6.113b(a)(4) is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the tank, the Permittee shall notify the Administrator at least 7 days prior to the refilling of the tank. Notification shall be made by telephone followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Commissioner at least 7 days prior to the refilling.	40 CFR Section 60.113b(a)(5); Minn. R. 7011.1520(C)
After each inspection required by 40 CFR Section 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR Section 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within thirty (30) days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR Section 60.112b(a)(1) or 40 CFR Section 60.113b(a)(3)(ii) and list each repair made.	40 CFR Section 60.115b(a)(4); Minn. R. 7011.1520 (C)

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-12

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Notification - Control Equipment Installation and Certification: After installing the internal floating roofs, furnish the Administrator with a report describing the control equipment (fixed roof/internal floating roof combination) and certifying that the control equipment meets the specifications of Sections 60.112b(a)(1) and 60.113b(a)(1). This report shall be attached to the initial startup notification required by Section 60.7(a)(3) and located in Table B of this permit.	40 CFR Section 60.115b(a)(1); Minn. R. 7011.1520(C)
Reporting - Annual Inspection Results: If any of the conditions described in 40 CFR Section 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR Section 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the tank, the nature of the defects, and the date the tank was emptied or the nature of and date the repair was made.	40 CFR Section 60.115b(a)(3); Minn. R. 7011.1520(C)

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-13

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: GP 006 Ethanol Loadout**Associated Items:** EU 060 Ethanol Loadout (Truck)

EU 061 Ethanol Loadout (Rail)

What to do	Why to do it
Vent all emissions when loading ethanol into trucks and/or railcars to the Loadout Flare (EU066, CE023).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: GP 007 Multiclones

Associated Items: CE 019 Centrifugal Collector - High Efficiency

CE 021 Centrifugal Collector - High Efficiency

What to do	Why to do it
Pressure Drop: greater than or equal to 2 inches of water column and less than or equal to 10 inches of water column , unless a new range is set by permit reopening or permit amendment, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200. Minn. R. 7007.0800, subp. 2 and 14
Record pressure drop once each day of operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Vent all emissions to the thermal oxidizers (CE020 and CE022).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Inspect monthly, or as required by manufacturing specifications, all components that are subject to wear or plugging. Maintain a written record of the inspections and any corrective actions resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and subp. 14
Calibrate the pressure gauge annually or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and subp. 14
Corrective Actions: If the pressure drop is outside of the range specified by this permit or if the dryers or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the pressure drop to the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the dryers. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-15

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: GP 009 Hammermills**Associated Items:** EU 007 Hammermill 1

EU 008 Hammermill 2

EU 009 Hammermill 3

EU 010 Hammermill 4

What to do	Why to do it
The Hammermills are not to be operating while corn is being shipped from Cargill AgHorizons.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200
Daily Recordkeeping. At any time that grain is shipped from the Cargill AgHorizons facility, the Permittee shall record and maintain a record of the dates and times which the Hammermills are not operating.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 004 Corn Elevator Baghouse 1

Associated Items: EU 004 Corn Elevator 1

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 005 Corn Storage Silo Baghouse 1

Associated Items: EU 005 Scalper

EU 006 Corn Storage Silo 1

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 006 EP6

Associated Items: EU 007 Hammermill 1

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 007 EP7

Associated Items: EU 008 Hammermill 2

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 008 EP8

Associated Items: EU 009 Hammermill 3

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 009 EP9

Associated Items: EU 010 Hammermill 4

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 015 DDGS Handling Baghouse 6

Associated Items: EU 053 DDGS Bucket elevator

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 016 DDGS Loadout Baghouse 1

Associated Items: EU 054 DDGS Truck Load Spout

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 017 DDGS Loadout Baghouse 2

Associated Items: EU 055 DDGS Rail Load Spout

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due before 01/04/2009 for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 019 TO/HRBs

- Associated Items:**
- EU 011 Slurry Tank 1
 - EU 012 Liquefaction Tank 1
 - EU 013 Yeast Tank 1
 - EU 014 Yeast Tank 2
 - EU 015 Process Condensate Tank
 - EU 016 Beer Column 1
 - EU 017 Beer Column 2
 - EU 018 Stripper 1
 - EU 019 Stripper 2
 - EU 020 Rectifier 1
 - EU 021 Rectifier 2
 - EU 022 Evaporator 1
 - EU 023 Evaporator 2
 - EU 024 Syrup Tank
 - EU 025 Centrifuge 1
 - EU 026 Centrifuge 2
 - EU 027 Centrifuge 3
 - EU 028 Centrifuge 4
 - EU 029 Centrifuge 5
 - EU 030 Centrifuge 6
 - EU 031 Centrifuge 7
 - EU 032 Centrifuge 8
 - EU 033 Molecular Sieve 1
 - EU 034 Molecular Sieve 2
 - EU 035 Molecular Sieve 3
 - EU 036 Molecular Sieve 4
 - EU 037 200 Proof Condenser
 - EU 038 200 Proof Condenser
 - EU 056 DDGS Dryer A
 - EU 057 Thermal Oxidizer/Heat Recovery Generator 1
 - EU 058 DDGS Dryer B
 - EU 059 Thermal Oxidizer/Heat Recovery Generator 2
 - EU 062 DDGS Cooler #1
 - EU 063 DDGS Cooler #2

What to do	Why to do it
LIMITS	hdr
Opacity: less than or equal to 20.0 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. The limit applies at all times, except during periods of startup, shutdown, or malfunction. This is more stringent than Minn. R. 7011.0610, subp. 1(A)(2).	40 CFR 60.43b(f); 40 CFR 60.43b(g); Minn. R. 7011.0610, subp. 1(A)(2)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

<p>Volatile Organic Compounds: less than or equal to 4.0 lbs/hour using 12-month Rolling Sum as total mass of VOC.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>Total Particulate Matter: less than or equal to 8 lbs/hour</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; most stringent, meets limits set by Minn. R. 7011.0610.</p>
<p>Particulate Matter < 10 micron: less than or equal to 8 lbs/hour</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>Carbon Monoxide: less than or equal to 20.0 lbs/hour , based on a 30-day rolling average calculated using the total mass emissions for the previous 30 days.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>Nitrogen Oxides: less than or equal to 20.9 lbs/hour , based on a 30-day rolling average calculated using the total mass emissions for the previous 30 days.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>Sulfur Dioxide: less than or equal to 15.0 lbs/hour</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>PERFORMANCE TESTING REQUIREMENTS</p>	<p>hdr</p>
<p>Initial Performance Test: due before 11/11/2008 to measure PM emissions.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Initial Performance Test: due before 11/11/2008 to measure PM-10 emissions.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Initial Performance Test: due before 11/11/2008 to measure NOx emissions.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Initial Performance Test: due before 11/11/2008 to measure CO emissions.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Initial Performance Test: due before 11/11/2008 to measure VOC emissions including HAPS as outlined in Appendix VI.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 023 DDGS Bulkweigher Baghouse

Associated Items: EU 067 DDGS Bulkweigher

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due 180 days after Initial Startup for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due 180 days after Initial Startup for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: SV 024 DDGS Cross Conveyor Baghouse

Associated Items: EU 068 DDGS Cross Conveyor

GP 008 Limited Baghouses

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Particulate Matter < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due 180 days after Initial Startup for PM	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Initial Performance Test: due 180 days after Initial Startup for PM10	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: EU 065 Emergency Fire Pump

Associated Items: SV 021 Emergency Fire Pump

What to do	Why to do it
Opacity: less than or equal to 20.0 percent opacity Once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Operating Hours: Less than or equal to 100 hours per year using a 12-month rolling sum for the pump for routine testing and maintenance. The sum for the previous 12-month period is to be calculated by the 15th day of each month.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; 40 CFR Section 60.4211(e)
Hours of Operation: The Permittee shall record each month the number of hours of operation of the fire pump and a monthly record of 12-month rolling sum of the hours of operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
NSPS SUBPART IIII REQUIREMENTS	hdr
Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to subpart IIII, for all pollutants.	40 CFR Section 60.4205(c)
Effective October 1, 2007, diesel fuel must meet 40 CFR Section 80.510(a); Effective october 1, 2010, diesel fuel must meet 40 CFR Section 80.510(b) for nonroad diesel fuel.	40 CFR Section 60.4207(a) 40 CFR Section 60.4207(b)
The engine must be equipped with a nonresettable hours-of-operation meter.	40 CFR Section 60.4209(a)
the Permittee shall keep the records or perform the tests specified in one of the methods specified in 40 CFR Section 60.4211	40 CFR Section 60.4211(b)
RECORDKEEPING	hdr
Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S.EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subp. 4 and 5
Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of fuel oil, certifying that the fuel oil meets the requirements of 40 CFR 80.510(a) or (b).	Minn. R. 7007.0900, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: CE 018 Wet Scrubber - High Efficiency

- Associated Items:** EU 039 Fermenter 1
 EU 040 Fermenter 2
 EU 041 Fermenter 3
 EU 042 Fermenter 4
 EU 043 Fermenter 5
 EU 044 Fermenter 6
 EU 045 Fermenter 7
 EU 046 Fermenter 8
 EU 047 Beer Well
 GP 002 Wet Scrubber

What to do	Why to do it
OPERATIONAL LIMITS	hdr
Volatile Organic Compounds: less than or equal to 12.5 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 10 inches of water column or as determined by the most recent performance testing that demonstrated compliance with the permitted emission limit.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Water flow rate: greater than or equal to 35.0 gallons/minute absolute minimum, unless a new limit 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 limit shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The limit is final upon issuance of a permit amendment incorporating the change. If the water flow rate is below the minimum limit, the VOC emitted during that time shall be considered uncontrolled until the flow rate is above the minimum limit. This shall be reported as a deviation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Total Fermentation Tank Volume: Limited to 6,517,912 gallons.	Minn. R. 4410
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds: greater than or equal to 97.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
OPERATIONAL REQUIREMENTS	hdr
Vent all emissions from all fermentation units EU039 through EU047 to the Wet Scrubber (CE018) at all times that the associated units are in operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Record the pressure drop and water flow rate of the scrubber once each day of operation.	Minn. R. 7007.0800, subp. 2 and subp. 14
The Permittee shall operate and maintain the scrubber at all times that any emission unit controlled by the scrubber is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 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 scrubber is in operation.	Minn. R. 7007.0800, subp. 4
The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Calibrate the gauges annually, or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and subp. 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop or water flow rate is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber.</p>	<p>Minn. R. 7007.0800, subp. 4, 5, and 14</p>
<p>PERFORMANCE TESTING</p>	<p>hdr</p>
<p>Initial Performance Test: due before 11/11/2008 for total mass VOC emissions including HAPS as outlined in Appendix VI.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; and to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>Performance Test Notifications and Submittals; Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 day after each Performance Test. The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-32

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: CE 023 Flaring**Associated Items:** EU 060 Ethanol Loadout (Truck)

EU 061 Ethanol Loadout (Rail)

EU 066 Loadout Flare

What to do	Why to do it
Opacity: The Flare shall be operated so that there are no visible emissions from the stack (SV022).	Minn. R. 7007.0800, subps. 4, 5, and 14
Emissions from the ethanol loadout units (EU060 and EU061) will be controlled by the flare (CE023) that shall meet 98 percent control efficiency.	Minn. R. 7007.0800, subp. 2
Fuel Usage: The flare shall be used only with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted.	Minn. R. 7007.0800, subp. 2
The flare shall be operated at all times when emission units may be vented to them. Vent emissions from all units controlled by the flare EU066, through the flare at all times that the associated units are in operation.	Minn. R. 7007.0800, subp. 2
The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.	Minn. R. 7007.0800, subp. 2
Visible Emissions: The Permittee shall check the flare stack (SV 022) for any visible emissions once each day of operation during daylight hours. The Permittee shall keep a written record of each daily observation.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: FS 001 Truck Traffic

What to do	Why to do it
Truck Traffic: less than or equal to 401 trucks/day when the cooling towers and hammermills are not operating or 345 trucks per day when the cooling towers and hammermills are operating. during the months of April through November.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Truck Traffic: less than or equal to 371 trucks/day when the cooling towers and hammermills are not operating or 315 trucks per day when the cooling towers and hammermills are operating. during the months of December through March.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Recordkeeping: The Permittee shall record the number of grain delivery trucks entering the facility each calendar day and keep these records on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Truck Traffic: Annual DDGS loadout will be limited to 50 percent truck loadout or 180,000 tons of DDGS loadout by truck per year. Wetcake (DGS) may be shipped out by truck. For wetcake, the equivalent dry weight shall be used to demonstrate compliance with the 180,000 ton limit.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Recordkeeping: The Permittee shall record the number of DDGS loadout trucks entering the facility each calendar day and keep these records on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Truck Traffic: Annual denatured ethanol loadout will be limited to 50 percent truck loadout or 61,950,000 gallons of denatured ethanol loadout by truck per year.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Recordkeeping: The Permittee shall record the number of ethanol loadout trucks entering the facility each calendar day and keep these records on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Truck Traffic: Annual denaturant delivery will be limited to 50 percent truck loadout or 2,950,000 gallons of denaturant delivery by truck per year.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Recordkeeping: The Permittee shall record the number of denaturant delivery trucks entering the facility each calendar day and keep these records on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Recordkeeping: The Permittee shall record the number and type of receiving and hauling trucks entering the facility each calendar day and keep these records on-site.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Fugitive Emissions: Do not cause or permit the transporting of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Do not cause or permit a road or a driveway to be constructed, used, repaired or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne.	Minn. R. 7011.0150
Abide by the Fugitive Dust Control Plan in Appendix II.	Minn. R. 7011.0150
Initial Performance Test: due before 07/31/2009 for paved road silt load.	40 CFR Section 52.21 and Minn. R. 7009.0020
Performance Test: due before end of each calendar half-year following Initial Performance Test for paved road silt load. The Initial Performance Test is due by July 31, 2009. All subsequent tests shall be performed in January and July of each calendar year. The tests shall be conducted in accordance with EPA guidance in Appendix C.1 and Appendix C.2 of AP42. The permittee shall keep records of silt loading testing. If tested silt loading values together with other paved roads terms (e.g. vehicle weight, vehicle speed) yields PM10 emission factors (pounds per vehicle-mile-traveled, lb/vmt) that are found to be greater than those assumed in the most recent approved modeling, then the road cleaning (sweeping and vacuuming) frequency will be revised so that lb/vmt values are low enough to comport with the most recent approved modeling (December 17, 2008).	40 CFR Section 52.21 and Minn. R. 7009.0020

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-34

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: FS 002 DDGS Storage Building

What to do	Why to do it
Opacity: less than or equal to 5.0 percent opacity for fugitive emissions from DDGS handling activities or DDGS railcar loading.	Minn. R. 7011.1005, subp. 3(A)
Opacity: less than or equal to 10.0 percent opacity for fugitive emissions from DDGS truck loading.	Minn. R. 7011.1005, subp. 3(B)
Clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (Reasonably Available Control Technology).	Minn. R. 7011.1005, subp. 1(A)

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-35

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: FS 003 Uncaptured Emissions from DDGS Handling

What to do	Why to do it
Opacity: less than or equal to 5.0 percent opacity for fugitive emissions from DDGS handling activities or DDGS railcar loading.	Minn. R. 7011.1005, subp. 3(A)
Opacity: less than or equal to 10.0 percent opacity for fugitive emissions from DDGS truck loading.	Minn. R. 7011.1005, subp. 3(B)
Clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (Reasonably Available Control Technology).	Minn. R. 7011.1005, subp. 1(A)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: FS 004 Equipment Leaks

What to do	Why to do it
STANDARDS: PUMPS	hdr
<p>Pumps in light liquid service:</p> <p>Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR Section 60.485(b), except as provided in 40 CFR Section 60.482-1(c) and paragraphs (d), (e), and (f).</p> <p>Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the seal.</p>	40 CFR Section 60.482-2 Minn. R. 7011.2900
<p>If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.</p> <p>If there are indications of liquids dripping from the pump seal, a leak is detected.</p> <p>When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR Section 60.482-9 (Delay of Repair).</p> <p>A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p>	40 CFR Section 60.482-2(b) and (c) Minn. R. 7011.2900
STANDARDS: COMPRESSORS	hdr
Each compressor shall be equipped with a seal system that includes a barrier fluid system that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR Section 60.482-1(c) and 40 CFR Section 60.482-3(h) and (i).	40 CFR Section 60.482-3(a) Minn. R. 7011.2900
<p>Each compressor seal system shall be:</p> <ul style="list-style-type: none"> - Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or - Equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of 40 CFR Section 60.482-10; or - Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. 	40 CFR Section 60.482-3(b) Minn. R. 7011.2900
<p>The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.</p> <p>Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.</p>	40 CFR Section 60.482-3(c) and (d) Minn. R. 7011.2900
<p>Each sensor shall be checked daily or shall be equipped with an audible alarm.</p> <p>The Permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.</p>	40 CFR Section 60.482-3(e) Minn. R. 7011.2900
If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph 40 CFR Section 60.482-3(e)(2), a leak is detected.	40 CFR Section 60.482-3(f) Minn. R. 7011.2900
<p>When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected except as provided in 40 CFR Section 60.482-9 (Delay of Repair).</p> <p>A first attempt at repair shall be made no later than 5 calendar days after it is detected, except as provided in 40 CFR Section 60.482-9.</p>	40 CFR Section 60.482-3(g) Minn. R. 7011.2900
STANDARDS: PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE	hdr
Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background as determined by the methods specified in 40 CFR Section 60.485(c).	40 CFR Section 60.482-4(a) Minn. R. 7011.2900
After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR Section 60.482-9 (Delay of Repair).	40 CFR Section 60.482-4(b) Minn. R. 7011.2900
STANDARDS: VALVES	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-37

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

<p>Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR Section 60.482-1(c).</p> <p>The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.</p>	40 CFR Section 60.482-6(a) Minn. R. 7011.2900
<p>Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.</p> <p>When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 40 CFR Section 60.482-6(a) at all other times.</p>	40 CFR Section 60.482-6(b) and (c) Minn. R. 7011.2900

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-38

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: FS 005 Cooling Towers

What to do	Why to do it
The cooling tower fans are not to be operating while corn is being shipped from Cargill AgHorizons.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200
Daily Recordkeeping. At any time that grain is shipped from the Cargill AgHorizons facility, the Permittee shall record and maintain a record of the dates and times which the cooling tower fans are not operating.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-39

04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

Subject Item: FS 006 Wet Cake Storage

What to do	Why to do it
<p>Wet cake storage limitation: When wet cake by-product is produced, and ambient temperature is greater than 55 degrees Fahrenheit, it will be stored for no longer than 72 hours on-site, except in unforeseen cases of product shipment cancellations, holidays, or weekends in which the recipient of the wetcake is unable to pick up the material. Under these unforeseen conditions, the wetcake will not be stored on site more than 5 calendar days.. In all cases, the wet cake will be moved off-site as soon as possible.</p> <p>Time stored onsite is determined for each each storage period by dividing the total amount of wetcake put into storage during the storage period (either 3 or 5 calendar days depending on the circumstances) by the average daily amount shipped offsite during the same period.</p>	Minn. R. 7007.0800, subp. 2
<p>Cont.</p> <p>The Permittee shall keep a record of the amount of wetcake sent to storage each day and the amount shipped offsite each day. The Permittee will also keep record of any circumstances that require the wetcake to be stored more than 72 hours.</p>	Minn. R. 7007.0800, subp. 2

TABLE B: SUBMITTALS

B-1 04/09/09

Facility Name: Buffalo Lake Energy LLC
Permit Number: 09100060 - 003

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

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

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

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

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

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

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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.

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.

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after 05/15/2008 This notification has been submitted and was received by the MPCA on 6/2/2008	GP004
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	GP005
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of each unit and the date construction of each unit began.	GP005
Testing Frequency Plan	due 60 days after Initial Performance Test for CO emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV019
Testing Frequency Plan	due 60 days after Initial Performance Test for NOx emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV019
Testing Frequency Plan	due 60 days after Initial Performance Test for PM emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV004, SV005, SV006, SV007, SV008, SV009, SV015, SV016, SV017, SV019, SV023, SV024
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV004, SV005, SV006, SV007, SV008, SV009, SV015, SV016, SV017, SV019, SV023, SV024
Testing Frequency Plan	due 60 days after Initial Performance Test for VOC emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	CE018, SV019

TABLE B: RECURRENT SUBMITTALS

B-3 04/09/09

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060 - 003

What to send	When to send	Portion of Facility Affected
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed	GP004
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Initial Startup of the Monitor (Submit Deviations Reporting Form DRF-1 as amended). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	GP004
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 08/24/2006 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 08/24/2006 (for the previous calendar year). To be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility
Relative Accuracy Test Audit (RATA) Results Summary	due 45 days after end of each calendar year following CEMS Relative Accuracy Test Audit (RATA)	GP004

APPENDIX MATERIAL

Facility Name: Buffalo Lake Energy LLC

Permit Number: 09100060-003

Appendix 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(A)	Fuel use: space heaters fueled by natural gas or propane. <i>These space heaters will have less than 30,000 BTU/hr heating capacity.</i>	Minn. R. 7011.0510/0515
3(J)	Fugitive Emissions from roads and parking lots. Main facility haul roads will be paved. Unpaved pull-offs may exist but are not used on a regular basis.	Minn. R. 7011.0150
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment.	Minn. R. 7011.0710/0715

Appendix II

Haul Roads Fugitive Dust Control Plan Buffalo Lake Energy, LLC

TABLE OF CONTENTS

	Section Page
1.0 INTRODUCTION	1
2.0 HAUL ROADS	2
3.0 GRAIN HANDLING	3
4.0 DDGS HANDLING	4
5.0 WET CAKE PRODUCTION	5
6.0 EQUIPMENT LEAKS	6

1.0 INTRODUCTION

Buffalo Lake Energy, LLC (BLE) received an air construction permit (Permit Number 09100060-001) on August 24, 2006 to construct a 118 million gallon per year ethanol production facility to be located in Fairmont, Minnesota. Subsequent permits were issued to BLE for revisions to the facility design and operation (permit Numbers 09100060-002 and 09100060-003). As required by these permits, a Fugitive Emissions Control Plan must be submitted to the agency identifying all fugitive emissions sources, primary and secondary contingent control measures, and record keeping procedures. Fugitive emissions emitted at this site may be particulate matter (PM) or volatile organic compounds (VOC). The following operations with the potential to create fugitive dust emissions are required to be included in the Plan.

- Haul Roads
- Grain Handling
- DDGS Handling
- Wet Cake Production
- Equipment Leaks

The Plan has been completed to fulfill air permit requirements stated in the "Total Facility" section on the permit.

1. Haul Roads Fugitive Dust Control Plan

This section outlines the truck haul road fugitive emissions control measures that will be implemented at BLE.

1.1 Description of Fugitive Emission Source

Through the hauling process, fugitive dust is generated from the contact between the roads and the vehicle tires causing the re-suspension of loose material on the road surface. The following operations will have the potential of generating fugitive dust emissions:

- Grain Receiving Haul Trucks
- Grain Shipping Haul Trucks
- DDGS Shipping Haul Trucks
- Denaturant Receiving Haul Trucks
- Ethanol Shipping Haul Trucks

1.2 Control Measures

BLE proposes the following control measures to mitigate emissions from the truck hauling activities at the site:

- Haul roads at the site will be paved;
- The north entrance to the facility will be swept and vacuumed twice daily as illustrated in Appendix V of the Air Permit;
- Visual inspections of the haul roads will be performed daily;
- Haul roads at the site will be swept and vacuumed weekly or when silt has accumulated to visible levels on the road;
- Signage will be posted to limit the truck traffic speed to 10 miles/hour;
- The total number of vehicles hauling materials will be limited as stated in the permit;

In addition to the above control measures, the facility will conduct a vacuum test of the silt loading semiannually. The first test will be completed within 12 months of initial startup and all subsequent tests will occur in July and January in order to collect data during both normal baseline conditions and winter baseline conditions, respectively. The MPCA will be notified of the testing procedure under a submitted testing protocol. The results of the test will be kept on file and provided to the MPCA upon request.

1.3 Record Keeping

The number of haul vehicles traveled on the roads will be recorded as stated in the permit. The silt loading values from the semiannual testing will be recorded and kept on file.

2. Grain Handling

This section outlines the fugitive emissions control measures that will be implemented at BLE during the grain handling operations.

2.1 Description of Fugitive Emission Source

Fugitive dust is generated during the grain handling process. Fugitive dust may be emitted when the grain is received, transferred, or stored.

2.2 Control Measures

BLE proposes the following control measures to mitigate emissions from the grain handling activities at the site:

- All grain receiving and transfer points will be controlled by a high efficiency fabric filter baghouse; the baghouses will provide at least a 99% control efficiency;
- Receiving and loadout areas are within a building structure to limit disturbance from wind;
- If grain is spilled, the areas will be cleaned.
-

2.3 Record Keeping

Parameters related to the baghouse operations will be recorded as stated in the air permit. The baghouses will be monitored daily for any visible emissions and at least once per year the control units will be inspected for potential malfunctions. All data related to the monitoring and inspections will be maintained and filed.

3. DDGS Handling

This section outlines the fugitive emissions control measures that will be implemented at BLE during the dried distillers grain with solubles (DDGS) handling operations.

3.1 Description of Fugitive Emission Source

Fugitive dust is generated during the DDGS handling process. Fugitive dust may be emitted when the DDGS is transferred, stored, or during loadout.

3.2 Control Measures

BLE proposes the following control measures to mitigate emissions from the grain handling activities at the site:

- All DDGS transfer points and loadout operations will be controlled by a high efficiency fabric filter baghouse; the baghouses will provide at least a 99% control efficiency;
- The DDGS will be stored in an enclosed building and transferred via enclosed conveyors to the DDGS loadout area;
- The loadout area is within a building structure to limit disturbance from wind;
- If DDGS is spilled, the area will be cleaned;
- The DDGS handling and rail loadout operations will be limited to 5.0% opacity;
- The DDGS truck loadout operations will be limited to 10.0% opacity.

3.3 Record Keeping

Parameters related to the baghouse operations will be recorded as stated in the air permit. The baghouses will be monitored daily for any visible emissions and at least once per year the control units will be inspected for potential malfunctions. All data related to the monitoring and inspections will be maintained and filed.

4. Wet Cake Production

This section outlines the fugitive emissions control measures that will be implemented at BLE during the wet cake production operating scenario.

4.1 Description of Fugitive Emission Source

BLE has a secondary operating scenario of wet cake production rather than drying the byproduct to DDGS. The wet cake is stored on an open cement storage area. Fugitive emissions generated during the wet cake production process include PM and VOC emissions.

4.2 Control Measures

BLE proposes the following control measures to mitigate emissions from the wet cake production activities at the site:

- The wet cake will be stored no longer than permitted and the material will be sold and shipped as quickly as possible;

4.3 Record Keeping

The facility will record the amount of wet cake produced on an annual basis.
Buffalo Lake Energy, LLC

5. Equipment Leaks

This section outlines the fugitive emissions control measures that will be implemented at BLE to limit the amount of VOC emissions from equipment leaks.

2.1 Description of Fugitive Emission Source

Units with the potential to emit VOC emissions are controlled through wet scrubbing, thermal oxidation, or flaring. The pipes that connect these units have the potential to emit VOC emissions through leaks at the valves or other connection points.

2.2 Control Measures

BLE proposes the following control measures to mitigate emissions from equipment leaks at the site:

- The facility will operate in compliance with New Source Performance Standard
- Subpart VV as stated in the permit and summarized below:
- Each pump in light liquid service will be monitored monthly to detect potential leaks,
- Each pump in light liquid service will be checked by visual inspection on a weekly basis,
- Each compressor will be equipped with a seal system that includes a barrier fluid system to prevent leakage,
- The barrier sensor will be checked daily or will be equipped with an alarm,
- Except during pressure releases, all pressure relief devices in gas/vapor service will operate with no detectable emissions,
- Each open ended valve or line will be equipped with a cap, flange, plug or a second valve,
- All leaks will be repaired as stated in the permit

2.3 Record Keeping

All detected leaks will be recorded on the date of detection. The day the leak is repaired will be recorded and filed.

Appendix III

Modeling Inputs

MPCA Dispersion Modeler: Lance Breitenbach

Date: July 2008

Other dates of importance: Site visit August 2008

Project Facility: Buffalo Lake Energy, LLC Fairmont, MN, Cargill AgHorizons, Fairmont

Modeling was submitted by Natural Resource Group on behalf of Buffalo Lake Energy, LLC and Cargill AgHorizons. This location is considered one source with two permits.

I recommend that the air dispersion modeling for the Buffalo Lake Energy and Cargill facility be accepted; the modeling represents an accurate depiction of the facility.

Modeling Comments

- 280 Trucks per day summer, 250 in winter.
- There is no fence completely surrounding the facility to prohibit the public from getting on site. Indicate what measures are being taken to restrict public access from the site. Railroad tracks are not considered a physical barrier.
- Modeling was done for hours of operation of 0600-2100.
- BLE was unable to achieve 1 SIL of future growth so any future changes will need to be modeled.
- Modeling Parameters used Alternate 1 PM10 24hr:

SOURCE ID	Number PART. CATS.	Emission Rate (g/s)	X (Meters)	Y (Meters)	***	POINT	Source	DATA	***	BLDG EXISTS	URBAN SOURCE	Cap/ Hor	EMIS RATE SCALAR VARY BY
					BASE ELEV. (Meters)	STACK HEIGHT (Meters)	STACK TEMP. (DEG.K)	STACK EXIT Vel. (M/SEC)	STACK DIAMETER (Meters)				
CHSSV001	0	1.48E-01	378610.9	4836087	366.7	48.77	294.26	20.1	1.17	YES	NO	NO	

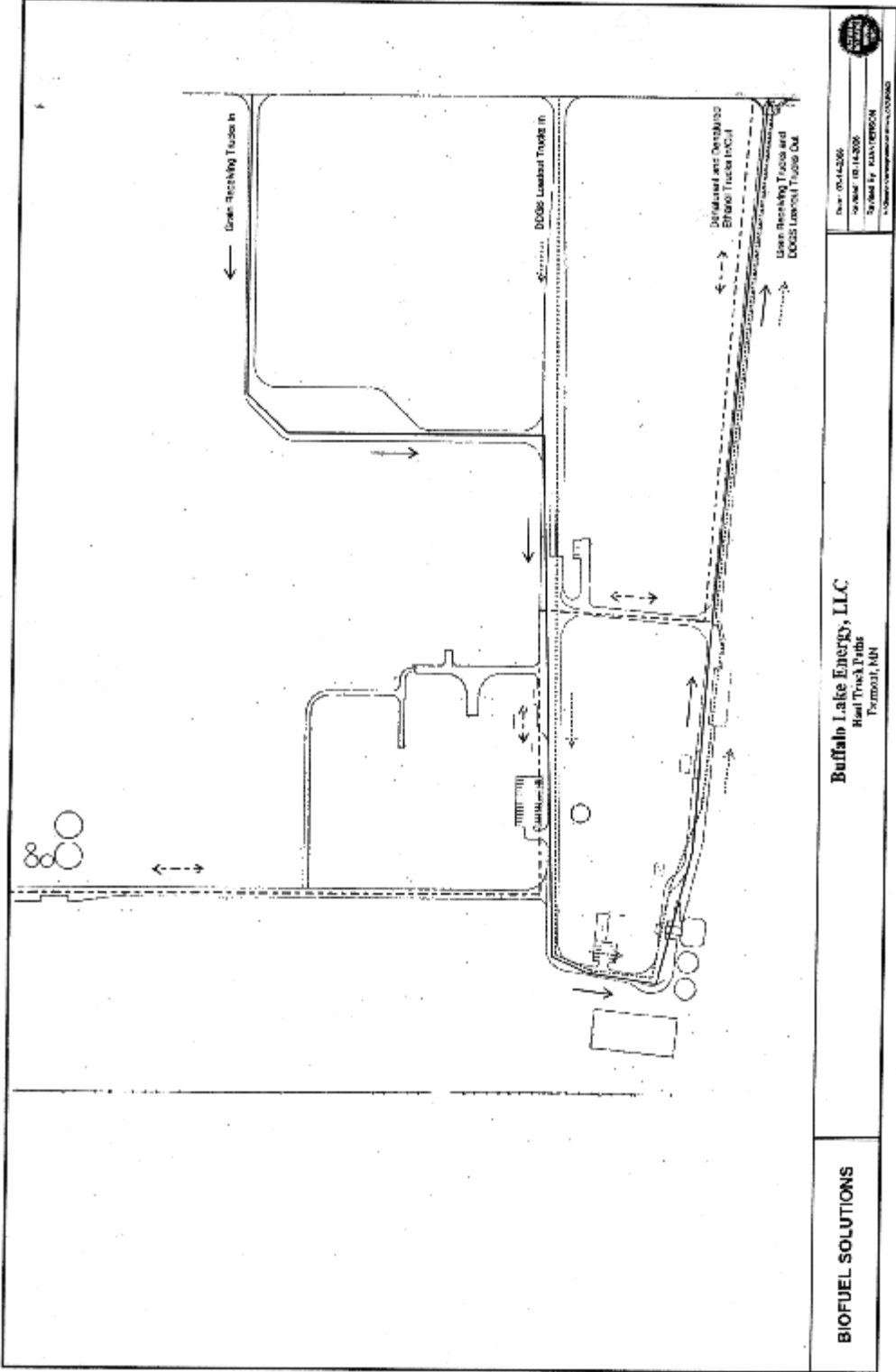
CHSSV002	0	1.40E-02	378608	4836095	366.7	49.68	299.82	17.5	0.3	YES	NO	NO
CHSSV003	0	1.40E-02	378599	4836103	366.7	49.68	299.82	17.5	0.3	YES	NO	NO
CHSSV004	0	5.42E-03	378601	4836089	366.7	6.1	299.82	14.8	0.2	YES	NO	NO
CHSSV005	0	2.43E-02	378529	4836116	366.7	39.62	299.82	17.39	0.51	YES	NO	NO
CHSSV006	0	1.47E+00	378555	4836108	366.7	54.86	327.44	17.48	2.06	YES	NO	NO
CHSSV007	0	8.10E-02	378540	4836107	366.7	39.62	299.82	17.13	0.73	YES	NO	NO
CHSSV008	0	1.40E-01	378546	4836102	366.7	39.62	299.82	16.17	0.61	YES	NO	NO
CHSSV009	0	4.90E-02	378551	4836097	366.7	39.62	299.82	17.13	0.73	YES	NO	NO
CHSSV010	0	9.80E-03	378607	4836103	366.7	48.77	299.82	18.19	0.24	YES	NO	NO
CHSSV011	0	6.60E-03	378595	4836094	366.7	48.77	299.82	17.82	0.2	YES	NO	NO
CHSSV012	0	2.17E-01	378613.5	4836090.5	366.7	48.77	299.82	19.96	1.42	YES	NO	NO
CHSSV013	0	9.68E-01	378510	4836174	366.7	42.67	310.93	22	1.52	YES	NO	NO
CHSSV015	0	2.53E-01	378518	4836098	366.7	48.77	422.04	16.49	1.07	YES	NO	NO
CHSSV020	0	1.81E-02	378495	4836084	366.7	10.67	449.82	16.1	0.53	YES	NO	NO
CHSSV021	0	9.00E-03	378412	4836030	366.7	27.43	422.04	11.6	0.3	YES	NO	NO
CHSSV022	0	9.00E-03	378422	4836022	366.7	27.43	422.04	11.6	0.3	YES	NO	NO
CHSSV023	0	4.28E-03	378397	4836054	366.7	13.11	299.82	11.5	0.2	YES	NO	NO
CHSSV016	0	2.53E-01	378525	4836103	366.7	48.77	422.04	16.5	1.07	YES	NO	NO
CHSSV024	0	2.53E-01	378521	4836108	366.7	48.77	422.04	16.5	1.07	YES	NO	NO
LFJSV001	0	3.28E+00	351758.5	4851120	396	15.85	632	19.81	4.5	NO	NO	NO
LFJSV002	0	3.28E+00	351802.4	4851120	396	15.85	632	19.81	4.5	NO	NO	NO
LFJSV003	0	3.28E+00	351885.6	4851118	396	15.85	632	19.81	4.5	NO	NO	NO
LFJSV004	0	3.28E+00	351928.8	4851117	396	15.85	632	19.81	4.5	NO	NO	NO
LFJSV005	0	3.28E+00	352012.7	4851117	396	15.85	632	19.81	4.5	NO	NO	NO
LFJSV006	0	3.28E+00	352056.6	4851116	396	15.85	632	19.81	4.5	NO	NO	NO
VSWSV005	0	1.26E+00	372503	4835768	372	38.1	394.26	13.72	3.05	YES	NO	NO
VSWSV006	0	5.75E-04	372455.4	4835878.5	372	10.67	699.82	13.72	1.22	YES	NO	NO
VSWSV019	0	2.88E-02	372544.6	4835775	372	12.19	0	20.18	1.52	YES	NO	NO
VSWSV001	0	2.70E-01	372654.7	4835880	372	12.19	0	26.36	1.07	YES	NO	NO
VSWSV002	0	5.41E-02	372618.9	4835882.5	372	12.19	0	5.18	1.07	YES	NO	NO
VSWSV003	0	1.30E-01	372651.9	4835826	372	12.19	0	12.5	1.07	YES	NO	NO
VSWSV007	0	7.68E-02	372390.8	4835714.5	372	8.53	0	0.15	9.14	YES	NO	NO
VSWSV008	0	7.68E-02	372403.7	4835713.5	372	8.53	0	0.15	9.14	YES	NO	NO
VSWSV009	0	7.68E-02	372416.4	4835713	372	8.53	0	0.15	9.14	YES	NO	NO
VSWSV010	0	7.68E-02	372429.4	4835712.5	372	8.53	0	0.15	9.14	YES	NO	NO
EP4	0	8.69E-03	379038.6	4835651	365.3	14.63	0	0	0.37	YES	NO	NO
EP5	0	8.06E-03	379046.7	4835658.5	365.4	45.72	0	0	0.31	YES	NO	NO
EP15	0	4.41E-03	379234.9	4835615.5	365.8	16.46	0	0	0.24	YES	NO	NO
EP16	0	5.80E-03	379182	4835558.5	365.8	15.24	0	13.76	0.28	YES	NO	NO

NUMBER SOURCE ID	EMISSION PART. CATS.	RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	*** POINT			Source DATA		***	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
					BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT Vel. (M/SEC)	STACK DIAMETER (METERS)					
EP17	0	5.80E-03	379180.9	4835551.5	365.8	15.24	0	8.36	0.36	YES	NO	NO		
EP19	0	7.19E-01	379254.8	4835760	365.8	42.67	408.15	23.5	1.89	YES	NO	NO		
EP102	0	3.48E-02	378982.8	4835577	364.3	43.28	0	0	0.69	YES	NO	NO		
EP103	0	4.95E-02	378991.9	4835579	364.7	15.24	0	23.7	0.76	YES	NO	NO		
FIREPUMP	0	6.70E-03	379213.4	4835799.5	365.8	3.15	699.82	0	0.22	YES	NO	NO		
EP102PA	0	-3.48E-02	378983.2	4835577	364.3	44.81	0	16.78	0.76	YES	NO	NO		
SV022	0	1.64E-03	379195.6	4835582.5	365.8	16.31	0	0	0.13	YES	NO	NO		
SV023	0	6.80E-03	379190.8	4835579.5	365.8	17.53	0	0	0.37	YES	NO	NO		
EP104	0	5.04E-02	378972.1	4835571.5	363.8	50.9	0	55.16	0.51	YES	NO	NO		

NUMBER SOURCE ID	PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (Meters)	BASE Y (Meters)	*** VOLUME			Source DATA		***	URBAN SOURCE	Emission Rate Scalar Vary BY
					RELEASE ELEV. (Meters)	INIT. HEIGHT (Meters)	INIT. SY (Meters)	SZ (Meters)				
FS101	0	1.15E-03	379165.3	4835635	365.8	5.33	31.88	4.97	NO			
FS003	0	4.16E-04	379161.5	4835558.5	365.8	2.29	1.7	2.27	NO			
FS002	0	4.16E-04	379245.8	4835567	365.8	2.13	0.85	1.98	NO			
FS105/2A	0	5.67E-03	378983.7	4835595	364.4	2.29	1.7	2.27	NO			
FS105/2B	0	5.67E-03	378977.1	4835595.5	364.2	2.29	1.7	2.27	NO			
EP101PA	0	-6.39E-01	379008.5	4835578	365.3	25.6	5.79	7.94	NO			
FS101PA	0	-1.15E-03	379160.2	4835634.5	365.8	5.33	31.88	4.97	NO			
F105/2AP	0	-5.90E-03	378983.5	4835594.5	364.4	2.29	1.7	2.27	NO			
F105/2BP	0	-5.90E-03	378977.2	4835596	364.2	2.29	1.7	2.27	NO			
CONVPA	0	-3.42E-02	378985	4835588	364.4	40.23	1.42	1.42	NO			
STORPA	0	-9.49E-03	378974.8	4835588.5	364.1	40.23	0.7	1.42	NO			
STOR2PA	0	-9.49E-03	378953	4835582	363.6	40.23	0.71	1.42	NO			
FS104PA	0	-6.33E-03	378977.2	4835564.5	363.9	4.57	0.28	0.28	NO			
CONV2PA	0	-3.42E-02	378964.7	4835591	363.9	40.23	1.42	1.42	NO			
CONV3PA	0	-3.42E-02	378935.6	4835600.5	363.5	20	1.42	1.42	NO			

- Modeling Parameters used Alternate 2 PM10 24hr:

Appendix IV:
Truck Traffic
Fence Diagram



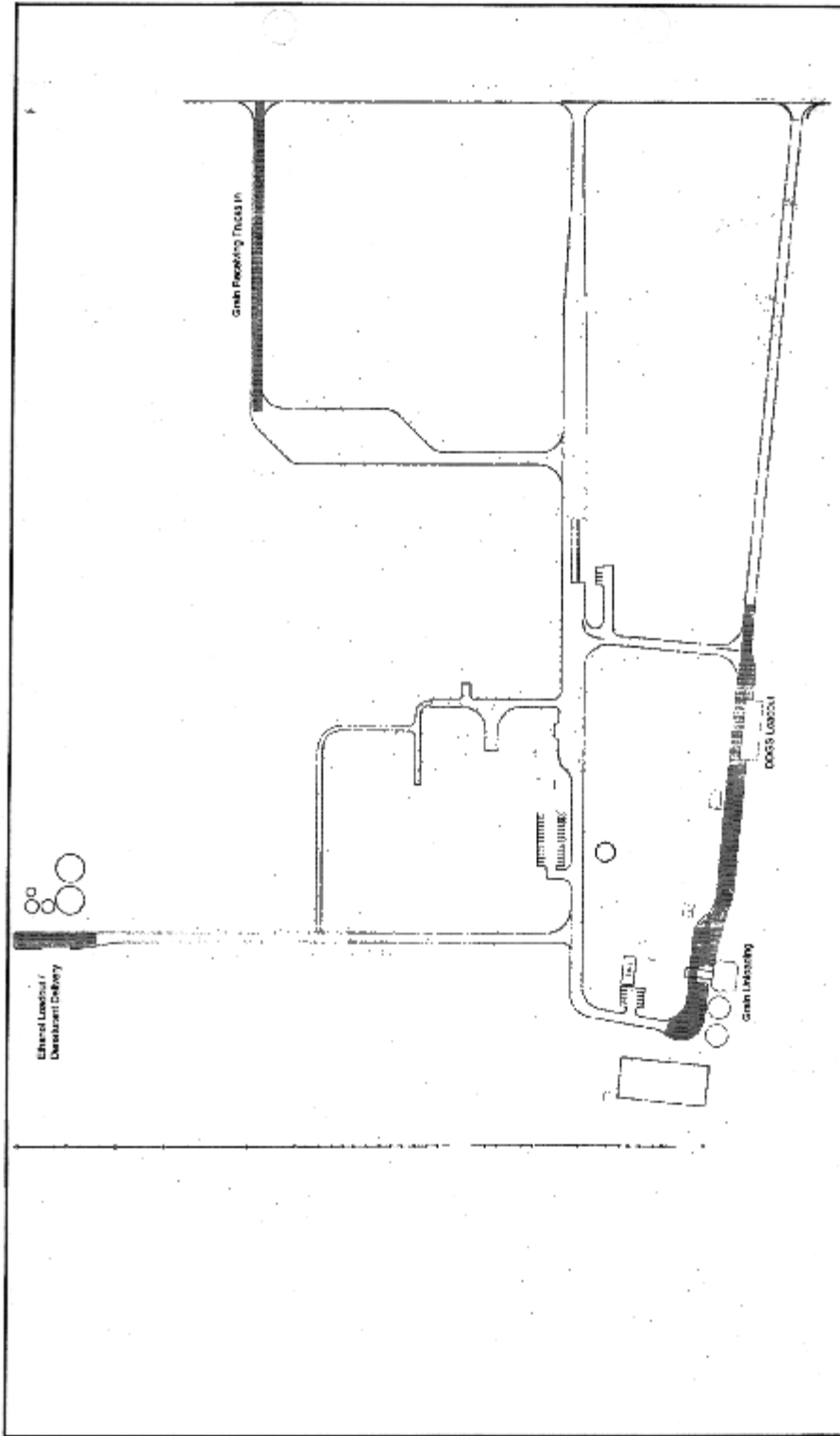
Date: 05-14-2008
 Version: 001A2008
 Drawn by: KAY/TP/PCN
 Project: 001A2008

Buffalo Lake Energy, LLC
 Rail Truck Pads
 Ferris, MN

BIOFUEL SOLUTIONS

Appendix V:

Daily Sweeping and Vacuuming Road Segments



Date: 11-14-2008
 Project: 11-14208
 Location: 11-14208-001
 11-14208-001-001

Buffalo Lake Energy, LLC
 Shaded Road Segments Designates Daily Sweeping and Vacuuming
 FORTYFOUR, MN

BIOFUEL SOLUTIONS

Appendix VI:

HAP Performance Testing

When conducting performance testing for HAP, the Permittee must test for:

CO2 Scrubber and Process Scrubber Compounds: ethanol, acetaldehyde, ethyl acetate, isoamyl alcohol, acetic acid, acrolien, formaldehyde, and methanol

Cooling Cyclone and RTO Compounds: acetaldehyde, ethyl acetate, methanol, ethanol, acetone, 2,3-butadione, formaldehyde, isoamyl alcohol, acetic acid, furfural, 2,3-butanediol, formic acid, and acrolien

Additional chemicals may be required by the MPCA Performance Test Coordinator.

Appendix VII:

Best Management Practices

for

Odor Prevention

Table of Contents Section Page

Possible Sources of Odors Emissions1

Operation and Maintenance Requirements.....2

Equipment Failure and Response Analysis.....3

Notification.....3

General Comments regarding Odors

This best management practices (BMP) odor prevention plan is intended to meet the requirements of Minnesota Pollution Control Agency (MPCA) Air Emission Permit Program (permit applied for) regarding any potential odors. This BMP plan is contingent on the construction and subsequent operation of the proposed facility. The facility is intended to operate continuously (24 hours per day) and is expected to produce minimal odor during normal operations. Any possible exposure to malodorous emissions beyond the property boundaries, considering the intensity, frequency, and duration, will be a function of the prevailing weather conditions such as temperature, wind direction, wind speed, and humidity. These odor characteristics may also be affected by unpredicted and undesirable process upsets. In the event that odors from the facility occur during normal operations, the response portion of this plan will be implemented once the odor complaint is validated by the local governing unit (LGU) or MPCA. This plan describes the response the facility will take if odor complaints, validated by the LGU or MPCA, occur. The plan also describes the potential odor sources and the odor abatement best management practices and controls in place to minimize or negate the possibility of odors at all times.

I. Possible Sources of Odors

Batch Fermentation. Fermentation of sugar produces ethanol and also carbon dioxide (CO₂) as a major by-product. Fermentation occurs in batch fermentation tanks. The vents of the fermentation tanks are routed to a CO₂ scrubbing system. The CO₂ Scrubber uses water to clean the gases. CO₂ and other non-condensing gases leaving the scrubber are vented to the atmosphere. The water absorbs a high percentage of volatile organic compounds (VOC) which are the primary source of odors at this type of facility.

Distillation/Dehydration. The beer resulting from fermentation runs through a distillation system to remove the spent grain and water from the ethanol. The exhaust gases from the distillation process as well as gases from the slurry preparation (prior to fermentation) and mash cooling (after fermentation) are directed to a thermal oxidizer prior to venting to the atmosphere. Thermal oxidizers destroy VOC by combustion, eliminating most of the odor from this part of the plant.

Dried Distillers Grain Drying and Handling. Distillers grain is dried in a ring dryer system. A portion of the exhaust from the dryer is recycled to the inlet of the dryer to recover energy and provide a lower temperature drying environment. Exhaust gases not recycled to the dryer inlet are vented to the thermal oxidizer to destroy VOC and odor.

Ethanol Storage Tanks. The product is pumped daily from the day tanks to the ethanol storage tanks. All storage tanks will be located above ground in a lined, secondary containment area. Each tank has a floating roof to reduce evaporative loss from the tank, which in turn reduces odors.

Fugitive & Miscellaneous Emissions. Potential fugitive emissions have been considered for all applicable processes, including but not limited to grain handling and milling, feed transfers, piping components, product loading, and on-site roads. Additional emissions (summarized here as miscellaneous) have also been quantified in the air permit application package. Such emissions include the cooling tower, emergency fire water pump, and industrial flares.

Wet Cake (Distillers Grains) – Wet cake will be sold and shipped as quickly as possible to avoid the potential for odor impacts near the facility. Wet cake will not be stored for longer than permitted. Wetcake is a fast-turnaround product that is not typically produced unless there is an immediate plan to ship it out to a customer.

Other emissions sources – All other emission sources planned for the facility were evaluated as having insignificant odor potential. These include: corn unloading and DDGS loading, corn milling, DDGS cooling, maintenance activities, warehousing and transport engines, fire control equipment, office and janitorial activities, heating, small engine fuel storage, water for boilers, and sewer plumbing.

II. Operation and Maintenance Requirements

Daily operational checks as well as monthly and quarterly maintenance schedules will be performed and recorded based on the air operating permit requirements and manufacturer specifications. These schedules will occur according to operation and maintenance plans and Best Management Practices as summarized below. The following items must be maintained for each unit:

DDGS Dryer System-

Burner control system and the mechanical components of the conveyors.

Fans, conveyors, drive motors, and centrifuges are inspected per manufacturer's specifications.

Status of drive motors, conveyors, and fans is recorded per maintenance management procedures..

Wet Scrubbers-

Operational checks are performed on the circulation pumps and packing as needed.

Scrubber level, differential pressure, water flow rate and other operational data is reviewed and recorded daily or as required by the manufacturer..

Wet Cake (Distillers Grains)

- Record wet cake production daily.

2

III. Equipment Failure and Response

In the event of a process or odor control equipment breakdown, the facility will comply with MN Rules 7019.1000 and will use this document as the “compliance document.” The following steps will be taken in the event of process or odor control equipment failure:

DDGS Dryer System If the dryer system is not operating, the minimum operating conditions for this process will be production of wet cake limited by livestock feed markets.

Wet cake (stillage)

The minimum operating conditions for storage of this wet cake include:

Wet cake would not be stored for longer than permitted on site, unless the ambient temperature is below 55 °F, or

The facility will sell the wet cake as soon as possible or transport the wet cake offsite for land application or agricultural bagging.

Distillers wet or dry grain is a valuable co-product. It would not be economical to produce distillers’ grains without a market or sale of the product. Spoiled product is not suitable for sale to DDGS customers, so it must be avoided.

Fermentation Vessels Failure or malfunction of the CO₂ scrubber – If the scrubber is to fail, fermentation continues for up to 48 hours for batch completion. However, fermentation would be suspended thereafter; until the scrubber is operable.

IV. Notification

If the facility does not follow the aforementioned response steps, the commissioner must be notified within 24 hours of the breakdown of more than one hour as specified in MN Rules 7019.1000. The plant electronic or written logs will serve as the record of compliance. Such records may include work orders or revised procedures for maintenance of odor abatement operations.

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 09100060-003
Major Amendment

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

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 2869)
BioFuel Energy 1600 Broadway, Suite 2200 Denver CO, 80202	Buffalo Lake Energy, LLC 1125 Bixby Rd Fairmont, Martin County
Contact: Timothy DeFoe Phone: 303-640-6489	

1.2. Description of the Permit Action

Buffalo Lake Energy, LLC is a fuel-grade ethanol production facility in Fairmont, Minnesota. The facility has a design capacity of 118 million gallons of undenatured ethanol. The plant will also produce Distillers Dried Grains and Solubles (DDGS) for animal feed as a by-product of the ethanol production process. Emission sources at the facility include fermentation, distillation, DDGS handling and drying, combustion sources, storage tanks, production loadout, and fugitive sources such as grain handling and dust from haul roads.

The ethanol facility is located adjacent to an existing Cargill grain elevator (permit no. 09100061-002). The grain for the ethanol facility will be provided from and stored at the Cargill facility. The Cargill grain elevator was classified as a Country Grain Elevator according to the May 1999 MPCA Air Quality Rules and Permitting for the Grain and Feed Industry fact sheet. A conveying system will transport the grain from the Cargill facility to the hammermilling process at the facility. The two facilities are considered a single source for PSD purposes but they are being permitted separately.

The primary emissions are Volatile Organic Compounds (VOC), Particulate Matter (PM) Particulate Matter less than 10 um in size (PM₁₀), Nitrogen oxides (NO_x), and Carbon Monoxide (CO). VOCs are emitted by fermentation, distillation, DDGS drying, wetcake production and storage, ethanol loading, and VOC liquid storage and piping. PM/PM₁₀ is emitted by DDGS handling and drying, corn receiving and handling, and vehicle traffic. NO_x and CO are emitted by combustion sources.

Air pollution control equipment includes fabric filters (CE004 to CE009 and CE015 to CE017), the Wet Scrubber (CE018), Multiclones (CE019 and CE021) and the Thermal Oxidizers (CE020 and CE022). The scrubber controls emissions from the fermentation and distillation units including the beer well, evaporators and centrifuges; and the thermal oxidizer controls emissions from the Dryers, distillation process and DDGS coolers. A flare is used to control emissions from truck and rail ethanol loadout. Baghouses control PM/PM₁₀ from the corn and DDGS handling and storage systems and the Truck/Rail Loadout area. There are five internal floating roof tanks for ethanol, denaturant, and denatured ethanol. Emissions from process valves and piping will be controlled through an inspection and maintenance program.

Permit Action 002

This permit action updates the permit for design changes made during construction (deletion of three fabric filter baghouses, CE001, CE002, and CE003).

CE001 and CE002 were originally intended to control dust from a conveyor that moves corn from the Cargill storage facility into the Buffalo Lake Energy facility. The installed conveyor is a sealed design from which dust cannot escape. CE003 was to control dust from a bulkweigher which has been deleted from the design.

The permit action also corrects the list of baghouses in Group GP001 by deleting CE010 through CE014. These baghouses were deleted from the design prior to issuance of the first permit but were inadvertently left in this group. These baghouses would have controlled dust from DDGS handling and loadout. DDGS dust is now controlled by CE015, CE016, and CE017.

This permit action also includes a change requested through an administrative amendment application for use of an access restriction plan in place of fencing.

1.3 Description of the Activities Allowed by this Permit Action

Major Amendment: Permit Action 003

This permit action updates the permit for the allowance of an increase in the particulate matter less than 10 microns (PM_{10}) grain loading limit for facility baghouses to .003 grains per dry standard cubic foot.

This permit action updates the permit for the allowance of an increase in truck traffic to 250 trucks per day during the months of December through March.

This permit action updates the permit for the allowance of an increase in the nitrogen oxides (NO_x) emission limit on the TO/HRB (SV019) to 20.93 pounds per hour and the PM/PM₁₀ emission limit for SV019 to 8.0 pounds per hour.

This permit action updates the permit for the allowance of the addition of two new baghouses to the DDGS handling system (CE024 and CE025).

This permit action updates the permit for the allowance of a reduction of the cooling tower circulating flow rate to 45,000 gallons per minute.

This permit action updates the permit for the allowance of a change in the tank sizes from the original design specifications.

1.4. Facility Emissions:

Table 1. Non-Title I Emissions Increase Summary

Pollutant	After Change (lb/hr)	Before Change (lb/hr)	Net Change (lb/hr)	Insignificant Modification Thresholds (lb/hr <)	Minor and Moderate Amendment Thresholds (lb/hr < or ≥)	Type of Amendment (Minor or Moderate)
PM ₁₀	3.04	3.22	-0.18	0.855	3.42	*
NO _x	20.93	18.00	2.93	2.28	9.13	**

* A major amendment is required because a Title 1 condition is being changed

** A major amendment is required because a Title 1 condition is being changed

Table 2. Total Facility Potential to Emit Summary

Pollutant	PM	PM ₁₀	SO ₂	NO _x	VOC	CO	Single HAP	All HAPs
Ethanol Facility PTE	55.46	50.00	65.73	94.39	87.23	91.75	9.0 acetaldehyde	14.5
Cargill Grain Handling Facility	27.31	12.48	0	0	0	0	0	0
Total	82.77	62.48	65.73	94.39	87.23	91.75	9.0	14.5

Table 3. Facility Classification

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

2. Regulatory and/or Statutory Basis

Federal New Source Review: The permit contains limits on fuel use, and ethanol and DDGS production that restrict annual emissions of PM, PM₁₀, NO_x, CO, SO₂, and VOC to less than 100 tons per year. VOCs are measured, and compliance is determined, as total VOCs by mass. The ethanol facility and the Cargill grain Elevator are considered one source for Prevention of Significant Deterioration (PSD) purposes and must add the emissions from the two facilities to determine major source status.

The proposed facility is located in Martin County. In Martin County, the minor source baseline for PM₁₀ was established in 1999, when Lakefield Junction submitted a permit application for a major PM₁₀ source. Because the minor source baseline has been established and because this source is co-located next to a major PSD source (Cenex Harvest States), the facility must account for its consumption of PM₁₀ increment.

Part 70 Permit Program

The facility has taken limits to remain a minor source under the Part 70 permit program.

Federal New Source Performance Standards: The tanks are subject to 40 CFR pt. 60, subp. Kb., The fluid handling equipment is subject to 40 CFR pt 60, subp. VV, and the thermal oxidizer heat recovery steam generating unit is subject to 40 CFR pt. 60, subp. Db. The emergency fire pump (EU065) is subject to 40 CFR pt. 60, subp. IIII. A small emergency generator is subject to 40 CFR pt. 60 subp, JJJJ but there are no JJJJ requirements that apply at this time.

Minnesota Performance Standards: The entire facility is subject to requirements for controlling fugitive PM, Minn. R. 7011.0150. The grain and DDGS handling portions of the facility are subject to Minnesota Performance Standards for Bulk Agricultural Handling Facilities. The dryers are subject to Minn. R. 7011.0610, Standards of Performance for Fossil Fuel Burning Direct Heating Equipment.

Environmental Review: The changes authorized by this amendment do not require preparation of an Environmental Assessment Worksheet (EAW). An EAW is mandatory for any ethanol plant that has the capacity to produce more than five million gallons of ethanol per year, or for an increase of 5 million gallons per year or an increase of air emissions of 250 tons per year or more. For the original construction permit, an EAW was prepared and made available for public notice on March 27, 2006.

NESHAPs: The Facility has accepted limits on VOC which effectively limit hazardous air pollutants (HAP) emissions such that it is a non-major source under 40 CFR pt. 63. The VOC limits are found at GP004, GP005, GP006, SV019, CE018, CE023, and FS004 and are expressed as limits in pounds per hour and limits on operational parameters of air pollution control equipment. Most HAPs emitted from ethanol production are VOC, so VOC limits can effectively limit HAPs in this case. Test data from ethanol plants has confirmed that if total VOC is limited by having at least 95 % VOC control on the fermentation and drying processes, and the plant demonstrates compliance with VOC limits, then HAP emissions will be below major source thresholds. Other controls taken into account include the liquid storage tanks and the Leak Detection and Repair program for piping leaks.

Thus, no NESHAPs which apply only to major sources apply. The cooling tower is subject to the cooling tower NESHAP which prohibits use of chromium-containing chemicals to treat the cooling water. There is a small emergency engine which is covered by NESHAP ZZZZ which simply requires the engine to be subject to NSPS JJJJ.

Table 4. Regulatory Overview of Units Affected by the Modification/Permit Amendment

EU, GP, or SV	Applicable Regulations	Comments:
GP001	Title 1 condition to avoid major source status under PSD	Added new DDGS Handling Baghouses CE024 and CE025.
GP008	Title 1 condition to avoid major source status under PSD	The PM10 grain loading limit was changed from .002 grains/DSCF to .003 grains/DSCF. SV023 and SV024 were added for new baghouses listed in GP001.
FS001	Title 1 condition to meet PM10 ambient air standard and increment.	Grain receiving truck traffic limit increased to 250 trucks/day during winter months. The DDGS truck limit (30 trucks/day) is clarified to allow dry or wet DGS.
SV019	Title 1 condition to avoid major source status under PSD	NOx limit increased to 20.93 lb.hr.
FS005	N/A	Circulating water flow rate reduced to 45,000 Gal/Min. FS005 is not a subject item in the permit but is listed in the Facility Description where the corresponding emissions are documented.

3. Technical Information

Permittee has submitted modeling demonstrating compliance with the ambient air standards and PSD increment.

3.1 Emissions Increase Analysis

See calculations from application attached to this TSD.

3.2 Periodic Monitoring

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

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

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

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 6. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
GP001	Title 1 condition to avoid major source status under PSD. Minn R. 7007.0800	No change from previous permit	Previous permit requires visible emissions checks or pressure drop if VE's are not possible for emissions checks. Previous permit requires standard Operating and Maintenance conditions.
GP008	Title 1 condition to avoid major source status under PSD.	No change from previous permit	Periodic monitoring for GP008 is found under GP001
SV019	Title 1 condition to avoid major source status under PSD.	No change from previous permit	Pollutant of concern is NOx, periodic monitoring consists of a continuous emissions monitor for NOx.

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
FS001	Title 1 condition to meet PM10 ambient air standard and increment.	No change from previous permit	Periodic monitoring is daily recordkeeping of the number of trucks. Semi-annual vacuum pump test in July and January according to dust prevention plan in appendix.
FS002	Minn. R. 7011.1005	None	During a site visit, DDGS was being piled in one location in the storage building while a second pile was being fed to the loadout conveyer. No visible emissions were observed outside the building and therefore periodic monitoring is not required.
FS003	Minn. R. 7011.1005	None	For DDGS handling and loading into trucks and railcars, a site visit confirmed that there are no visible fugitive emissions. The conveyors are controlled by baghouses. Truck and railcar loading use telescoping spouts which are also controlled by baghouses. Daily visible emission checks are done on baghouse exhausts.
FS005	N/A	N/A	Circulating cooling water flow rate determines drift loss (PM10) for the cooling tower. Circulating water flow rate will be lower than assumed in the initial application thus PM10 emissions will be lower.

3.3 Insignificant Activities

There are no new insignificant activities with this action.

3.4 Comments Received

To be completed following public notice.

4. Conclusion

Based on the information provided by Buffalo Lake Energy, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No.

09100060-003 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Scott Whitney (permit writer/engineer)
 Sarah Kilgriff (enforcement)
 Curt Stock(stack testing)
 Jessica Forsberg (peer reviewer)

AQ File No. 4267; DQ 2075

Attachments: 1. PTE Summary Calculation Spreadsheets
 2. Facility Description and CD-01 Forms