AIR EMISSION PERMIT NO. 02700022- 004

IS ISSUED TO

Anheuser Busch Inc.

BUSCH AGRICULTURAL RESOURCES - MOORHEAD
2101 26th Street South
Moorhead, Clay County, MN 56560

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

Permit Type	Action	Application Date	Issuance Date
Total Facility Operating Permit	001	04/28/1995	10/08/2002
Major Amendment	002	02/14/2003	08/06/2003
Major Amendment	003	01/09/2006	07/16/06
Minor Amendment	004	06/25/07	See below

This permit authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Pt 70/Major for NSR
Issue Date: October 8, 2002
Expiration: October 8, 2007
All Title I Conditions do not expire.

Minor Amendment
Issue Date: May 2, 2008

Jeff J. Smith, Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Commissioner
Minnesota Pollution Control Agency

TABLE OF CONTENTS

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:

Busch Agricultural Resources, Inc. (BARI) operates a barley malting plant in Moorhead, Minnesota. The barley is received, cleaned, graded, and stored in the silos. As needed, the barley is removed from the silos, conveyed to the steep house and loaded into the steep tanks. After 48 hours, the barley is transferred from the steep tanks into the germination compartments where it germinates for four days. The sprouted barley (green malt) is then transferred to the upper deck of a double deck kiln, dried for 12 to 24 hours, then dropped into the lower deck and dried for an additional 12 to 24 hours. The kiln is steam heated. Sulfur is used to introduce sulfur dioxide (SO_2) during the low heat phase of the kilning. The dried malt is cleaned and stored for a minimum of 28 days for aging. The malt is cleaned a second time just before loading into rail cars for shipping.

Emissions at the facility consist of particulate matter from grain handling and malt processing, SO_2 emissions from the kilns, and combustion products from the boilers and diesel generators. All grain and malt handling, with the exception of the kilns, is controlled with fabric filter baghouses.

The facility is a major source under federal Prevention of Significant Deterioration (PSD, 40 CFR § 52.21) and the Title V permit program (40 CFR § 70.2).

PERMIT ACTION 002, MAJOR AMENDMENT DESCRIPTION:

This permit amendment increased an existing Title I Condition (listed under GP 001 DC-400 Equipment) for the allowable "**total cleaned and graded barley**" limit of 200,000 tons/year to 250,000 tons/year.

The Permittee requested that the existing Title I Condition (listed under GP 001 DC-400 Equipment) for the allowable "**cleaned and graded barley shipped as export barley**" limit of 27,315 tons/year be removed, as this process is not affected by the barley cleaning equipment, and that there is no physical or design limitation that would prevent this facility from increasing the amount of export barley. Upon review of the "potential de-bottlenecking analysis" document associated with the permit action number 1258A-01-I/O-01, and discussing with the Permittee, the MPCA staff conclude that the above-mentioned limit is considered meaningless. Hence, the limit for cleaned and graded barley shipped as export barley is eliminated from this permit.

In order to satisfy the Compliance Assurance Monitoring (CAM – 40 CFR Part 64) for the fabric filter (CE 009) in this permit, a new requirement to monitor and recordkeeping of Visible Emissions is added to this permit.

This permit did not authorize any additional emission units.

Administrative Amendment Request – This permit amendment incorporated revisions to EU 071 (Boiler #2) limit basis and recordkeeping requirement. The Permittee requested that steam generated be recorded by an hourly log, each hour, instead of the 8-hour rolling average. Hence, this permit is amended to monitor steam generated on an hourly basis and to keep those hourly steam records.

PERMIT ACTION 003, MAJOR AMENDMENT DESCRIPTION:

This major amendment adds tire-derived fuel oil to the allowed fuels in boilers, EU070 and EU071.

PERMIT ACTION 004, MAJOR AMENDMENT DESCRIPTION:

This minor amendment adds landfill gas and on-specification used oil to the allowed fuels in boilers, EU070 and EU071.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

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
COMPLIANCE WITH NATIONAL AMBIENT AIR QUALITY STANDARDS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, supbs. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0100-7009.0080.
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr
These requirements apply where there is a reasonable possibility that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test and found to not be part of a major modification, may result in a significant emissions increase. If the ATPA test is not used for a particular project, or if there is not a reasonable possibility that the proposed project could result in a significant emissions increase, then these requirements do not apply to that project. Even though a particular modification is not subject to New Source Review, a permit amendment, recordkeeping, or notification may still be required under Minn. R. 7007.1150 - 7007.1500.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000
Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following information: 1. A description of the project 2. Identification of the emission unit(s) whose emissions of an NSR pollutant could be affected 3. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the potential emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the unit(s) could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
The Permittee must submit a report to the Agency if the annual summed (actual plus potential, if applicable) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain: a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The annual emissions (actual plus potential, if any part of the project was analyzed using potential emissions) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
FACILITY-SPECIFIC REQUIREMENTS	hdr
The Permittee shall clean up commodities spilled on the driveway and other facility property as required to minimize fugitive emissions to a level consistent with RACT (reasonably available control technology).	Minn. R. 7011.1005, subp. 1(A)

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

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. 7011.1015; Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
No owner or operator of a dry bulk agricultural commodity facility may operate or maintain a facility that creates a public nuisance. If the commissioner of the MPCA determines that operation or maintenance of the commodity facility creates a public nuisance, the owner or operator may be required to take measures necessary to eliminate the nuisance.	Minn. R. 7011.1010
REQUIREMENTS APPLICABLE TO ALL FACILITIES	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
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 shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment 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 the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
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 Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Record keeping: 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)
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 001 DC-400 Equipment**

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

EU 011 Debearder Garner 21-326-2/Feed Barley 1 (FB1)

EU 012 Feed Barley Screw Conveyor 21-330

EU 013 Grade A/B/C Bin 21-326-3

EU 014 Grade A/B/C Bin 21-326-1

EU 025 Feed Barley Bin 20-306

EU 026 Seed and Screenings Bin 20-304

EU 074 Conveyor 21-336

EU 076 Conveyor 21-330A

EU 078 Grain Cleaner 503 21-329-1

EU 079 Grain Cleaner 504 21-329-2

EU 080 Separator 505 21-324-1ABC

EU 081 Separator 506 21-324-1DEF

EU 082 Separator 507 21-324-2ABC

EU 083 Separator 508 21-324-2DEF

EU 084 Grader 509

EU 085 Grader 510

EU 086 Conveyor 21-337

SV 004 DC-400 (CE009) Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot . This limit applies to each individual unit listed in GP001. The limit is equivalent to approximately 3.23 lb/hour at maximum exhaust capacity. Assuming 99% control, calculated potential emissions are approximately 0.51 lb/hour.	40 CFR Section 60.302(b)(1); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent opacity from the control device (CE009)	40 CFR Section 60.302(b)(2); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent opacity - fugitive emissions	40 CFR Section 60.302(c)(2); Minn. R. 7011.1005, subp. 2
OPERATING REQUIREMENTS	hdr
Process Throughput: less than or equal to 250000 tons/year using 12-month Rolling Sum (total cleaned and graded barley) to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. All emission units or stacks added to GP001 as allowed in this permit shall be included in this calculation.	Title I Condition: To avoid classification of previous modification as major under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14; Also meets requirements under 40 CFR Part 64

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Visible Emissions: The Permittee shall check the fabric filter stack (SV 004) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.	Minn. R. 7007.0800, subp. 4 and 5; Also meets requirements under 40 CFR Part 64
RECORDKEEPING REQUIREMENTS	hdr
Monthly Recordkeeping - Total Cleaned and Graded Barley: By the 15th day of each month, the Permittee shall calculate and record the following: 1. The total cleaned and graded barley processed for the previous calendar month. This shall be based on grain receipt records and processing logs. 2. The 12-month rolling sum of the total cleaned and graded barley for the previous 12 month period by summing the monthly total cleaned and graded barley for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
Recordkeeping of Pressure Drop and Visible Emissions: The Permittee shall record the time and date of each pressure drop reading and visible emission inspection, and whether or not the observed pressure drop was within the range specified in this permit, and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - visible emissions are observed;or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 002 DC-100 Equipment**

Associated Items: CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 001 Barley Unloading

EU 067 By-Product Loadout

SV 001 DC-100 (CE001) Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 10 percent opacity from control device (CE001)	Minn. R. 7011.1005, subp. 3(D)
Opacity: less than or equal to 5 percent opacity (fugitive) from a truck or railcar unloading station or a railcar loading station.	Minn. R. 7011.1005, subp. 3(A)
Opacity: less than or equal to 10 percent opacity (fugitive) from a truck loading station	Minn. R. 7011.1005, supb. 3(B)
OPERATING REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Particulate Matter < 10 micron: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 003 DC-200 Equipment**

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

EU 002 Drag Conveyor 19-205

EU 003 Elevator 19-208

EU 015 Screw Conveyor 25-402-2

EU 018 Belt Conveyor 25-401-1

EU 019 Belt Conveyor 25-401-2

EU 020 Belt Conveyor 25-401-3

EU 021 Drag Conveyor 25-406-1

EU 022 Drag Conveyor 25-406-2

EU 023 Drag Conveyor 25-406-3

EU 027 Screw Conveyor 20-308

EU 042 Conveyor 24-702-1

EU 043 Conveyor 24-702-2

EU 044 Conveyor 24-702-3

EU 045 Conveyor 24-702-4

EU 046 Drag Conveyor 24-703

EU 047 Drag Conveyor 24-704

EU 048 Screw Conveyor 24-705

EU 049 Screw Conveyor 25-402-1

EU 055 Weigh Scale 26-815

EU 059 Malt Bin 27-906-1

EU 060 Malt Loadout Drag Conveyor 27-904

EU 061 Malt Loadout Drag Conveyor 27-902

EU 062 Sprouts Bin 27-906-2

EU 063 Screw Conveyor 27-903

EU 075 Conveyor 21-335

EU 077 Conveyor 26-816

SV 002 DC-200 (CE002) Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot . This limit applies to each individual unit listed in GP003. The limit is equivalent to approximately 3.23 lb/hour at maximum exhaust capacity. Assuming 99% control, calculated potential emissions are approximately 0.41 lb/hour.	40 CFR Section 60.302(b)(1); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent opacity from the control device (CE002)	40 CFR Section 60.302(b)(2); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent opacity - fugitive emissions	40 CFR Section 60.302(c)(2); Minn. R. 7011.1005, subp. 2
OPERATING REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 004 DC-300A Equipment**

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

EU 004 Raw Barley Garner 21-302

EU 016 Elevator 21-304

EU 017 Barley Storage Silos (48)

EU 024 Weigh Belt 22-558

EU 028 Steep Garner 22-549-1

EU 029 Steep Garner 22-549-2

EU 030 Steep Garner 22-549-3

EU 031 Steep Garner 22-549-4

SV 003 DC-300A (CE003) Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 10 percent opacity from control device (CE003)	Minn. R. 7011.1005, subp. 3(D)
Opacity: less than or equal to 5 percent opacity (fugitive) from a commodity handling operation.	Minn. R. 7011.1005, subp. 3(A)
OPERATING REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Particulate Matter < 10 micron: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading, and whether or not observed pressure drop was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 005 DC-300B Equipment**

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

EU 050 Elevator 26-817

EU 051 Elevator 26-813

EU 052 Kiln Malt Hopper 26-818

EU 057 Malt Storage Silos (40)

EU 058 Shipping Malt Hopper 26-819

SV 005 DC-300B (CE004) Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot . This limit applies to each individual unit listed in GP005. The limit is equivalent to approximately 1.61 lb/hour at maximum exhaust capacity. Assuming 99% control, calculated potential emissions are approximately 0.15 lb/hour.	40 CFR Section 60.302(b)(1); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent opacity from the control device (CE004)	40 CFR Section 60.302(b)(2); Minn. R. 7011.1005, subp. 2
Opacity: less than or equal to 0 percent opacity - fugitive emissions	40 CFR Section 60.302(c)(2); Minn. R. 7011.1005, subp. 2
OPERATING REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 006 DC-500 Equipment**

Associated Items: CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 032 Aspirator 22-503-1

EU 033 Aspirator 22-503-2

EU 034 Aspirator 22-503-3

EU 035 Aspirator 22-503-4

EU 036 Screw Conveyor 22-517

EU 037 Screw Conveyor 22-518

SV 006 DC-500 (CE006) Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 10 percent opacity from control device (CE006)	Minn. R. 7011.1005, subp. 3(D)
Opacity: less than or equal to 5 percent opacity (fugitive) from a commodity handling operation.	Minn. R. 7011.1005, subp. 3(A)
OPERATING REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Particulate Matter < 10 micron: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 007 DC-600 Equipment**

Associated Items: CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 053 Malt Cleaner 26-804-1

EU 054 Malt Cleaner 26-804-2

SV 007 DC-600 (CE007) Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 10 percent opacity from control device (CE007)	Minn. R. 7011.1005, subp. 3(D)
Opacity: less than or equal to 5 percent opacity (fugitive) from a commodity handling operation.	Minn. R. 7011.1005, subp. 3(A)
OPERATING REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Particulate Matter < 10 micron: greater than or equal to 80 percent collection efficiency by weight (fabric filter is typically 99% efficient)	Minn. R. 7011.1005, subp. 3(E)
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **GP 008 Kilns**

Associated Items: EU 038 Kiln Upper Deck 24-707-1

EU 039 Kiln Upper Deck 24-707-2

EU 040 Kiln Lower Deck 24-708-1

EU 041 Kiln Lower Deck 24-708-2

SV 010 Kiln 1

SV 011 Kiln 2

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
Sulfur Usage: Less than or equal to 155 pounds per day, in each of Kiln 1 and Kiln 2 (310 pounds per day total)	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used in PTE calculations)
RECORDKEEPING REQUIREMENTS	hdr
Daily Recordkeeping - Sulfur Usage: Each day, the Permittee shall record the total quantity of sulfur used in each kiln during the previous calendar day	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **SV 008 DC-700 (CE008) Exhaust**

Associated Items: EU 069 Central Dust Collection System

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 10 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent performance test where compliance for particulate matter emission was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2 and 14
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5; Minn. R. 7011.0080
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **SV 009 Boilers**

Associated Items: EU 070 Boiler 1

EU 071 Boiler 2

What to do	Why to do it
Performance Test: due 180 days after Startup with use of tire-derived oil, to measure emissions of particulate matter. The test may be conducted with either boiler 1 or boiler 2 in operation.	Minn. R. 7017.2020, subp. 1
Performance Test: due 180 days after Startup with used of tire-derived oil, to measure emissions of particulate matter smaller than 10 micron. The test may be conducted with either boiler 1 or boiler 2 in operation.	Minn. R. 7017.2020, subp. 1
Performance Test: due 180 days after Startup with use of tire-derived oil, to measure opacity. The test may be conducted with either boiler 1 or boiler 2 in operation.	Minn. R. 7017.2020, subp. 1
Performance Test: due 180 days after Startup with use of tire-derived oil, to measure emissions of nitrogen oxides. The test may be conducted with either boiler 1 or boiler 2 in operation.	Minn. R. 7017.2020, subp. 1
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

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **EU 070 Boiler 1**

Associated Items: SV 009 Boilers

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
OPERATING REQUIREMENTS	hdr
Fuel use: Limited to natural gas, landfill gas, commercial grades of fuel oil, on-specification used oil, and tire-derived fuel oil by design.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
Sulfur Content of Fuel: less than or equal to 2.5 percent by weight	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping: Record and maintain records of the amounts of each fuel combusted on a monthly basis. These records may consist of purchase records or receipts, but must include the sulfur content of fuel oil purchased.	Minn. R. 7007.0800, subp. 4

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **EU 071 Boiler 2**

Associated Items: SV 009 Boilers

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
OPERATING REQUIREMENTS	hdr
Steam Flow: less than or equal to 102,000 lbs/hour using 1-Hour Average as recorded in the "Boiler Room Hourly Log". Down time of 15 or more minutes is not to be included as operating time.	Minn. R. 7017.2025 (notice of compliance letter dated February 27, 1995)
Fuel use: Limited to natural gas, landfill gas, commercial grades of fuel oil, on-specification used oil, and tire-derived fuel oil by design.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
Sulfur Content of Fuel: less than or equal to 2.5 percent by weight	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2 and 14 (data used to calculate PTE)
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping: Record and maintain records of the amounts of each fuel combusted on a monthly basis. These records may consist of purchase records or receipts, but must include the sulfur content of fuel oil purchased.	Minn. R. 7007.0800, subp. 4
Recordkeeping - Steam Production: Record the one-hour average steam production, from EU071, each hour on the "Boiler Room Hourly Log".	Minn. R. 7007.0800, subp. 4

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **EU 072 Diesel Generator**

Associated Items: SV 012 Generator

What to do	Why to do it
EMISSION LIMITS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

Subject Item: **EU 073 Fire Pump**

Associated Items: SV 013 Fire Pump

What to do	Why to do it
EMISSION LIMITS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1

TABLE B: SUBMITTALS

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

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

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

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

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

Send any application for a permit or permit amendment to:

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

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 1096 days after 10/08/2002 for SO2, NOX, and PM10. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 1462 days after 10/08/2002 for SO2, NOX, and PM10. To be submitted after the MPCA has reviewed and approved the modeling protocol. The submittal should adhere to MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Testing Frequency Plan	due 60 days after Performance Test	SV009

TABLE B: RECURRENT SUBMITTALS

Facility Name: Busch Agricultural Resources - Moorhead

Permit Number: 02700022 - 004

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 10/08/2002 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occured, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 10/08/2002 (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL
Facility Name:Busch Agricultural Resources - Moorhead
Permit Number: 02700022-004

Insignificant Activities Required to be Listed

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(G)	Emissions from a laboratory, as defined in the subpart. • Barley and malt analysis lab	Minn. R. 7011.0710/0715
3(H)	Miscellaneous:	
	1. total usage of less than 200 gallons of VOC (including hazardous air pollutant-containing VOC) combined in any consecutive 12 months period at a stationary source; • Parts washer in maintenance shop	Minn. R. 7011.0710/0715 *OR*
	4. brazing, soldering or welding equipment; • Welding tools in maintenance shop	7011.0710/0715

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 02700022-004

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

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 2083)
Busch Agricultural Resources, Inc. – Moorhead Malt Plant 2101 28th Street South Moorhead 56560	2101 28th Street South Moorhead Clay County
Contact: Mr. Kirby J. Kraft Phone: (314) 577-4572	

1.2. Description of the Stationary Source

Busch Agricultural Resources, Inc. (BARI) operates a barley malting plant in Moorhead, Minnesota (Facility). The barley is received, cleaned, graded, and stored in the silos. As needed, the barley is removed from the silos, conveyed to the steep house and loaded into the steep tanks. After 48 hours, the barley is transferred from the steep tanks into the germination compartments where it germinates for four days. The sprouted barley (green malt) is then transferred to the upper deck of a double deck kiln, dried for 12 to 24 hours, then dropped into the lower deck and dried for an additional 12 to 24 hours. The kiln is steam heated. Sulfur is used to introduce Sulfur Dioxide (SO_2) during the low heat phase of the kilning. The dried malt is cleaned and stored for a minimum of 28 days for aging. The malt is cleaned a second time just before loading into rail cars for shipping.

Emissions at the Facility consist of particulate matter from grain handling and malt processing, SO_2 emissions from the kilns, and combustion products from the boilers and diesel generators. All grain and malt handling, with the exception of the kilns, is controlled with fabric filter baghouses.

The Facility is a major source under federal Prevention of Significant Deterioration (PSD, 40 CFR § 52.21) and the Title V permit program (40 CFR § 70.2).

1.3 Description of the Activities Allowed by this Permit Action

This minor amendment adds landfill gas and on-specification used oil as an additional fuel for the boilers (EU070 and 071), which currently burn no. 6 fuel oil or natural gas. Off-specification used oil combustion is not authorized by this amendment. A minor amendment is utilized when a change is below the state minor thresholds. Because the PTE remains unchanged for this amendment, a minor amendment applies. The use of the minor amendment also reissues the permit with the changes.

The Feb. 13, 2008 applicability determination request (DQ #1901) is slso rolled into this permit action.

1.4. Facility Emissions:

Emissions Increase Summary

For the federal New Source Review (NSR) program, the Permittee used the Projected-Actual-to-Baseline-Actual method and demonstrated a less-than–significant increase for each NSR pollutant. A copy of Form CH-04a is attached to this TSD. For federal New Source Performance Standards (NSPS), 40 CFR § 60.14(e)(4) provides that use of an alternate fuel that a boiler is already capable of using is not a modification for the purposes of NSPS, regardless of any change in emissions. Since these boilers are now capable of burning no. 6 fuel oil and no physical changes are for the use of landfill gas and on-specification used oil, this is not an NSPS modification.

The Permittee believes landfill gas and on-specification used oil will result in less emissions than no. 6 fuel oil.

Total Facility Potential to Emit Summary

Since the Facility will still be allowed use of no. 6 fuel oil and natural gas, the total facility potential-to-emit remains unchanged from previous permits.

Table 1. Facility Classification

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

2. Regulatory and/or Statutory Basis

New Source Review

The Facility is an existing major source under NSR regulations. The addition of a new fuel to the permit is considered a "change in method of operation" (if there is no physical change needed to accommodate the fuel), and therefore may be a modification if there is an increase in emissions (U.S. Environmental Protection Agency (EPA) Region IV memo dated July 25, 2001, regarding Mobile Energy Services Co.).

For NSR, the emissions change was estimated using the projected-actual-to-baseline-actual method.

Part 70 Permit Program

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

New Source Performance Standards (NSPS)

For use of an alternate fuel that a boiler is already capable of using, 40 CFR § 60.14(e)(4) provides that this is not a modification for the purposes of NSPS. Since these boilers are now capable of burning no. 6 fuel oil and no physical changes are for the use of landfill gas and on-specification used oil, this is not an NSPS modification.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The Facility is a non-major source under 40 CFR pt. 63. Thus, no NESHAPs apply and use of landfill gas and on-specification used oil does not constitute construction of reconstruction of a process or production unit under 40 CFR pt. 63.

Minnesota State Rules

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

- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.1000 – 7011.1015: Standards of Performance for Dry Bulk Agricultural Commodity Facilities (DBAC rule)
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 2. Regulatory Overview of Units Affected by the Modification/Permit Amendment

EU, GP, or SV	Applicable Regulations	Comments:
EU 070 EU071	Minn. R. 7011.0515	Limits Particulate Matter (PM) and SO_2 emissions and opacity

3. Technical Information

3.1 Calculations of Emissions

Attachment 1 to this TSD contains the Title I emissions increase calculations for this modification. This demonstrates that this modification is not a major modification for Prevention of Significant Deterioration (PSD).

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 Minnesota Pollution Control Agency (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 3 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 3. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
EU070 EU071	Required in previous permit and now used for 40 CFR § 52.21(r)(6)	Monthly record of the amount of each fuel used in each boiler	

3.3 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements.

Comments were not received from the public during the public notice period.

4. Conclusion

Based on the information provided by Busch Agricultural Resources, the MPCA has reasonable assurance that the operation of the emission facility, as described in the Air Emission Permit No. 02700022-004, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Bruce Braaten (permit writer/engineer)
Cary Hernandez (enforcement)
Dave Beil (peer reviewer)

Attachments:
1. Form CH-04a
2. Checklist for Baseline Actual Emissions and Projected Actual Emissions

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

PERMIT CHANGE FORM **CH-04a**

DETERMINATION OF INCREASES AT MAJOR SOURCES

(FORMERLY FORM MOD-04A DETERMINATION OF INCREASES AT MAJOR SOURCES)

06/30/05

1a) AQ Facility ID No.: 2700022

1b) AQ File No.: 1258A

2) Facility Name: Busch Agricultural Resources, Inc. - Moorhead Malt Plant

Use this Form to calculate emissions increases at existing major NSR sources. If the facility is not a major source under NSR, use Form CH-04b.

3. Modified, Replacement, and/or Debottlenecked Emission Units

Use Table 1 to document the emissions increase individual units using the calculation method found in 40 CFR § 52.21(a). The procedure for calculating whether a significant emissions increase will occur depends on the type of emissions unit being modified. See instructions for calculating emissions increases. Complete a separate Table 1 for each modified, replacement, or debottlenecked emission unit. Make additional copies if more than three units are affected. Summarize the total increases for each pollutant in Table 2. Attach your calculations.

Table 1

EU 70 ☒ Modified ☐ Replacement ☐ Debottlenecked

POLLUTANT	☒ Projected Actual* or ☐ Future Potential Emissions (tpy)	Baseline Actual Emissions (tpy)	Exclusions from Projected Actuals (tpy)	Description of Exclusions from Projected Actuals	Increase (tpy)	Baseline period (dates)
PM	20.3	19.74	20.3	Demand Growth	0	2003 &4
PM_{10}	16.56	16.1	16.56	Demand Growth	0	2003 &4
NO_x	37.57	36.53	37.57	Demand Growth	0	2003 &4
SO_2	222.92	216.72	222.92	Demand Growth	0	2003 &4
CO	4	3.89	4	Demand Growth	0	2003 &4
Ozone (VOC)	0.23	0.22	0.23	Demand Growth	0	2003 &4
Lead	0	0	0	Demand Growth	0	2003 &4
Fluorides	0	0	0	Demand Growth	0	2003 &4
Sulfuric acid mist	0	0	0	Demand Growth	0	2003 &4
Hydrogen Sulfide (H_2S)	0	0	0	Demand Growth	0	2003 &4
Total Reduced Sulfur including H_2S	0	0	0	Demand Growth	0	2003 &4
Total Reduced Sulfur Compounds including H_2S	0	0	0	Demand Growth	0	2003 &4

MWC Organics	0	0	0	Demand Growth	0	2003 &4
MWC Acid Gas	0	0	0	Demand Growth	0	2003 &4
MWC Metals	0	0	0	Demand Growth	0	2003 &4
MSW Landfill Gas	0	0	0	Demand Growth	0	2003 &4

* Title/date of document(s) used as basis for projected actuals:

Budgeted Production - expected business activity (equates to max capacity of facility) -

EU 071 ☒ Modified ☐ Replacement ☐ Debottlenecked

POLLUTANT	☒ Projected Actual* or ☐ Future Potential Emissions (tpy)	Baseline Actual Emissions (tpy)	Exclusions from Projected Actuals (tpy)	Description of Exclusions from Projected Actuals	Increase (tpy)	Baseline period (dates)
PM	20.3	19.74	20.3	Demand Growth	0	2003 & 4
PM_{10}	16.56	16.1	16.56	Demand Growth	0	2003 & 4
NO_x	37.57	36.53	37.57	Demand Growth	0	2003 & 4
SO_2	222.92	216.72	222.92	Demand Growth	0	2003 & 4
CO	4	3.89	4	Demand Growth	0	2003 & 4
Ozone (VOC)	0.23	0.22	0.23	Demand Growth	0	2003 & 4
Lead	0	0	0	Demand Growth	0	2003 & 4
Fluorides	0	0	0	Demand Growth	0	2003 & 4
Sulfuric acid mist	0	0	0	Demand Growth	0	2003 & 4
Hydrogen Sulfide (H_2S)	0	0	0	Demand Growth	0	2003 & 4
Total Reduced Sulfur (TRS) including H_2S	0	0	0	Demand Growth	0	2003 & 4
TRS Compounds including H_2S	0	0	0	Demand Growth	0	2003 & 4
MWC Organics	0	0	0	Demand Growth	0	2003 & 4
MWC Acid Gas	0	0	0	Demand Growth	0	2003 & 4
MWC Metals	0	0	0	Demand Growth	0	2003 & 4
MSW Landfill Gas	0	0	0	Demand Growth	0	2003 & 4

☐ Modified ☐ Replacement ☐ Debottlenecked

POLLUTANT	☐ Projected Actual* or ☐ Future Potential Emissions (tpy)	Baseline Actual Emissions (tpy)	Exclusions from Projected Actuals (tpy)	Description of Exclusions from Projected Actuals	Increase (tpy)	Baseline period (dates)
PM						
PM_{10}						
NO_x						
SO_2						

CO						
Ozone (VOC)						
Lead						
Fluorides						
Sulfuric acid mist						
Hydrogen Sulfide (H_2S)						
Total Reduced Sulfur (TRS) including H_2S						
TRS Compounds including H_2S						
MWC Organics						
MWC Acid Gas						
MWC Metals						
MSW Landfill Gas						

Table 2 – Summary of Table 1 Results

POLLUTANT	EU 70 Increase (tpy)	EU 71 Increase (tpy)	Increase (tpy)	Increase (tpy)	Increase (tpy)	TOTAL INCREASE (tpy)
PM	0	0				0
PM_{10}	0	0				0
NO_x	0	0				0
SO_2	0	0				0
CO	0	0				0
Ozone (VOC)	0	0				0
Lead	0	0				0
Fluorides	0	0				0
Sulfuric acid mist	0	0				0
Hydrogen Sulfide (H_2S)	0	0				0
Total Reduced Sulfur including H_2S	0	0				0
Total Reduced Sulfur Compounds including H_2S	0	0				0
MWC Organics	00	0				0
MWC Acid Gas						
MWC Metals	0	0				0
MSW Landfill Gas	0	0				0

4. Installation or Construction of New Emission Units

Use this page to document the emission increases from each *new* emission unit. Copy this page if more than five units are added. Attach your calculations.

Table 3

POLLUTANT	_____	_____	_____	_____		Total
PM						
PM_{10}						
NO_x						
SO_2						
CO						
Ozone (VOC)						
Lead						
Fluorides						
Sulfuric acid mist						
Hydrogen Sulfide (H_2S)						
Total Reduced Sulfur including H_2S						
Reduced Sulfur Compounds including H_2S						
MWC Organics						
MWC Acid Gas						
MWC Metals						
MSW Landfill Gas						

5. Totals

Table 4 – Project Summary

Column A	Column B	Column C	Column D	Column E
POLLUTANT	Emissions increases from modified, replacement, or debottlenecked units (from Table 2) (tpy)	Emissions from new units (from Table 3) (tpy)	Total Increase (tpy)	Significant Thresholds for major sources
PM	0	0	0	25 [1]
PM_{10}	0	0	0	15
NO_x	0	0	0	40
SO_2	0	0	0	40
CO	0	0	0	100
Ozone (VOC)	0	0	0	40
Lead	0	0	0	0.6
Fluorides	0	0	0	3
Sulfuric acid mist	0	0	0	7
Hydrogen Sulfide (H_2S)	0	0	0	10
Total Reduced Sulfur including H_2S	0	0	0	10
Reduced Sulfur Compounds including H_2S	0	0	0	10
MWC Organics [2]	0	0	0	0.0000035
MWC Acid Gas [3]	0	0	0	40
MWC Metals [4]	0	0	0	15
MSW Landfill Gas	0	0	0	50

Note 1 - July 31, 1987, the National Ambient Air Quality Standard for TSP (PM) was repealed and replaced with a standard for PM_{10}. The significant levels in this table are as they appear in the Code of Federal Regulations, March 1994. A source may not be required to comply with Nonattainment NSR for TSP increases above 25 tpy, but may be for PM_{10} above 15 tpy.

Note 2 - MWC Organics means Municipal Waste Combustor Organics. These are defined as total tetra-thro-octa-chlorinated dibenzo-para-dioxins and dibenzofurans.

Note 3 - MWC acid gases are measured as the sum of sulfur dioxide and hydrochloric acid.

Note 4 – MWC Metals are measured as particulate matter

Checklist for Baseline Actual Emissions and Projected Actual Emissions

Baseline Actual Emissions (applies to all existing units):

Baseline period (24-month period) for each pollutant (must use same baseline period for all affected units for each pollutant, but can have different periods for different pollutants).

Calendar years 2003 and 2004 were used for all pollutants.

Data used to calculate the baseline actual emissions and its adequacy (52.21(b)(48)(i)(d) or (ii)(e)).

A comparison with emission inventory data in Delta shows very close agreement with the emissions estimates submitted with the application.

Discussion and documentation of emissions included in the baseline period from fugitives, startup, shutdown, and malfunction.

There are no fugitive emissions from the boilers. Plant operation is reported as typically more than 8000 hours per year so there are few startups/shutdowns.

Discussion and documentation of any adjustments to the baseline actual emissions – noncompliance with requirements that applied during the baseline period as well as current permit limits and applicable requirements (e.g., table of permits/rules, issue/effective dates, applicable units, and limits).

No adjustments were necessary.

For Projected Actual Emissions:

Discussion of data used for business projections needed to calculate projected actual emissions.

Maximum possible facility production is used for projected actual emissions. Again, a comparison with emission inventory data in Delta shows very close agreement with the emissions estimates submitted with the application. Based on discussion with the Permittee, this amendment will not increase the plant's steam demand. This is only a fuel switch. Nothing else in the plant's operation will change.

Discussion and documentation of any emissions excluded from projected actual emissions (52.21(b)(41)(c)).

Even if no emissions are excluded, the emission increase is less than significant.

Discussion and documentation of emissions included in projected actual emissions from fugitives, startup, shutdown, and malfunction.

Projected actual emissions are based on maximum possible annual production.

If adequate data does not exist and the Facility must use PTE for certain existing units, include a discussion of this as well.

Not applicable.

Include a discussion on whether or not there is a "reasonable possibility" that the increase in emissions could be significant. The more likely this is, the more permit requirements are needed to ensure that a major modification does not occur (see "Other Possible Permit Conditions").

Projected actual emissions are estimated based on maximum possible production. Baseline actual emissions include the large use of no. 6 fuel oil. PM and SO_2 are expected to be substantially lower with landfill gas and on-specification used oil and CO and VOC to be the same. NOx is less certain but performance tests are required to determine an emissions factor before the significant level is reached. The facility always has the option of returning to no. 6 fuel oil or natural gas to limit the NOx emitted.

Mandatory permit conditions

☐ Record and reporting requirements in the Requirements Guidance Delta Helpfile for major PSD sources (40 CFR 52.21(r)(6) requirements).