#### AIR EMISSION PERMIT NO. 13300023- 001 IS ISSUED TO

Corn-er Stone Farmer's Cooperative, Inc. 109 South Freeman Avenue Luverne, Rock County, Minnesota 56156

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

Permit Type Application Date Total Facility Operating Permit 01/17/97

This permit authorizes the permittee to operate and construct a stationary source located on Walnut Street in Luverne, Minnesota, unless otherwise noted in Table A. The permittee must comply with all conditions of the permit and with all general conditions listed in Minn. R. pt. 7007.0800, subp. 16 which are incorporated by reference. Any changes or modifications to the stationary source must be performed in compliance with Minn. Rules pts. 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:** State; Syn Min PSD/NSR

**Issue Date:** July 31, 1997

**Expiration:** Permit does not expire

All Title I Conditions do not expire.

Michael J. Sandusky Acting Division Manager Air Quality Division

for Peder A. Larson
Commissioner
Minnesota Pollution Control Agency

TLV:yma

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#### NOTICE TO THE PERMITTEE:

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

Metro Area (612)296-6300

Outside Metro Area 1-800-657-3864

TTY (612)282-5332

The rule 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. 70007.1800, 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. Any requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to: Minn. R. ch. 7030 (Noise Pollution Control).

#### **FACILITY DESCRIPTION:**

Corn-er Stone Farmer's Cooperative is a fuel alcohol production plant located on Walnut Street in Luverne, Rock County, Minnesota. The plant will use approximately six million bushels of corn per year to produce 15 million gallons of fuel grade ethanol. A by-product of the ethanol process is Dry Distillers Grain with Solubles (DDGS) which is used as livestock feed. A bushel of corn will yield about 18 pounds of DDGS.

The facility has accepted limits on the amounts of total particulate matter, particulate matter smaller than ten microns, volatile organic compounds, and nitrogen oxides that can be emitted to the atmosphere, so that it is classified as a non-major source under both the Part 70 program (40 CFR § 70.2) and the federal New Source Review program (40 CFR § 52.21).

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

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

Subject Item: Total Facility	
What to do	Why to do it
Process Throughput: less than or equal to 15000000 gallons/year using 12 -month Rolling Sum of ethanol. (Production Limit) During the first 11 months of operation, ethanol production is limited to 1,250,000 gallons per calendar month.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Recordkeeping: by the 15th day of each month, calculate and record the ethanol production for the previous month and the total ethanol production for the previous 12-month period.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
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.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Shutdowns: Notify the Commissioner at least 24 hours in advance of shutdown of any process or control equipment if the shutdown would cause an increase in the emission of air contaminants. At the time of notification, notify the Commissioner of the cause of the shutdown and the estimated duration. Notify the Commissioner again when the shutdown is over.	Minn. R. 7019.1000, subp. 1
Breakdowns: Notify the Commissioner immediately of a breakdown of more than one hour duration of any process or control equipment if the breakdown causes an increase in the emission of air contaminants. At the time of notification or as soon thereafter as possible, the Permittee shall also notify the Commissioner of the cause of the breakdown and the estimated duration. Notify the Commissioner again when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, such as for system breakdowns, repairs, calibration checks, and zero and span adjustments (as applicable). Monitoring records should reflect any such periods of process shutdown.	Minn. R. 7007.0800, subp. 4(D)
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 pollution emitted.	Minn. R. 7011.0020
Oral Notification of Deviations Endangering Human Health or the Environment: Within 24 hours of discovery, orally notify the Commissioner of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7007.0800, subp. 6(A)
Discovery of Deviations Endangering Human Health or the Environment Report (written): due two (2) working days after discovery of deviation. Submit a written description of any deviation endangering human health or the environment to the Commissioner. Include the following information in this description: cause of the deviation; exact dates of the period of the deviation; if the deviation has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7007.0800, subp. 6(A)
Application for Permit Amendment: If you need a permit amendment, submit 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
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
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. Do not cause or permit a building or its appurtenances or an open area 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

Facility Name: Corn-er Stone Farmer's Cooperative Inc

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Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises, to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
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)

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: SV 001

Associated Items: EU 001 Corn Dump Pit/Auger

EU 002 Corn Elevator

EU 003 Scalper EU 004 Corn Bin EU 005 Corn Bin EU 006 Corn Bin EU 007 Corn Bin

EU 016 DDGS Dump Pit/Auger

EU 017 DDGS Elevator
EU 020 Rail Load spout
EU 021 Screw Conveyor
EU 022 Truck Load Spout

What to do	Why to do it
Particulate Matter < 10 micron: less than or equal to 1.5 lbs/hour (met by equipment capacity and production limitations).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Total Particulate Matter: less than or equal to 1.5 lbs/hour (met by equipment capacity and production limitations).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 [Also meets the requirements of Minn. R. 7011.1005, subp. 3(D)]
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: SV 002

Associated Items: EU 008 Hammermill/Belt Scale

What to do	Why to do it
Particulate Matter < 10 micron: less than or equal to 0.69 lbs/hour (met by equipment capacity and production limitations).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Total Particulate Matter: less than or equal to 0.69 lbs/hour (met by equipment capacity and production limitations).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 [Also meets the requirements of Minn. R. 7011.1005, subp. 3(D)]
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: SV 003

Associated Items: EU 025 Fermenter

EU 026 Fermenter
EU 027 Fermenter
EU 028 Beer Well
GP 001 VOC Emissions

What to do	Why to do it
Volatile Organic Compounds: less than or equal to 6.55 lbs/hour at outlet of control device	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; 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 of control device (CE 003) to measure volatile organic compound emissions.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7017.2020, subp. 1
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: SV 004

Associated Items: EU 015 Grain Dryer

GP 001 VOC Emissions

What to do	Why to do it
Total Particulate Matter: less than or equal to 11.41 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 [Also meets the requirements of Minn. R. 7011.1005, subp. 3(D)]
Particulate Matter < 10 micron: less than or equal to 11.41 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Volatile Organic Compounds: less than or equal to 6.13 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Nitrogen Oxides: less than or equal to 6.4 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; 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 of dryer to measure emissions of particulate matter <10 microns, volatile organic compounds, and nitrogen oxides.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup of dryer to measure emissions of total particulate matter	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
Initial Performance Test: due 180 days after Initial Startup of dryer to measure opacity.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: SV 010

Associated Items: EU 009 Beer Stripper

EU 010 Rectifyer
EU 011 Side Stripper
EU 012 Molecular Sieve
EU 014 Evaporator

GP 001 VOC Emissions

What to do	Why to do it
Volatile Organic Compounds: less than or equal to 0.25 lbs/hour at outlet of control device.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; 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 of control device (CE005) to measure volatile organic compound emissions.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7017.2020, subp. 1
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: SV 011

Associated Items: EU 018 Boiler

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What to do	Why to do it
Nitrogen Oxides: less than or equal to 12.56 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; 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 to measure nitrogen oxides emissions.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: SV 014

Associated Items: EU 024 Cooling Cyclone

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What to do	Why to do it
Total Particulate Matter: less than or equal to 1.40 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 [Also meets the requirements of Minn. R. 7011.1005, subp. 3(D)]
Particulate Matter < 10 micron: less than or equal to 1.40 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; 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 of cooling cyclone to measure emissions of particulate matter <10 micron.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Initial Startup of cooling cyclone to measure emissions of total paticulate matter	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1
Opacity: less than or equal to 10 percent opacity	Minn. R. 7011.1005, subp. 3(D)
Initial Performance Test: due 180 days after Initial Startup of cooling cyclone to measure opacity.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: EU 015 Grain Dryer

Associated Items: CE 004 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

SV 004

What to do	Why to do it
Fuel Burned: Natural gas and propane only.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: EU 018 Boiler

Associated Items: SV 011

What to do	Why to do it
Recordkeeping: Record and maintain records of the amounts of each fuel combusted on a monthly basis for the previous calendar month. These records may consist of fuel bills or meter readings.	40 CFR Section 60.13(I) to comply with 40 CFR Section 60.48c(g) and (I); Minn. R. 7011.1570
Fuel Burned: Natural gas and propane only.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: EU 024 Cooling Cyclone

Associated Items: SV 014

What to do	Why to do it
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 6 inches of water column or as determined once normal operation has begun.	Title I Condition: Equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Record pressure drop once each day of operation.	Title I Condition: Monitoring of equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
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

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

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

Associated Items: EU 001 Corn Dump Pit/Auger

EU 002 Corn Elevator

EU 003 Scalper EU 004 Corn Bin EU 005 Corn Bin EU 006 Corn Bin EU 007 Corn Bin

EU 016 DDGS Dump Pit/Auger

EU 017 DDGS Elevator
EU 020 Rail Load spout
EU 021 Screw Conveyor
EU 022 Truck Load Spout

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What to do	Why to do it
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Total Particulate Matter: greater than or equal to 99 percent collection efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Operation and Maintenance of Fabric Filter: The Permittee shall operate and maintain the fabric filter according to the control equipment manufacturer's specifications.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Visible Emissions: The Permittee shall check SV 001 (associated with CE 001) for any visible emissions during daylight hours, once each day of operation.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, and whether or not any VEs were observed.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: If visible emissions (VEs) are observed, the Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate the VEs. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007. 0800, subp. 5

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

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

Associated Items: EU 008 Hammermill/Belt Scale

What to do	Why to do it
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Total Particulate Matter: greater than or equal to 99 percent collection efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Operation and Maintenance of Fabric Filter: The Permittee shall operate and maintain the fabric filter according to the control equipment manufacturer's specifications.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Visible Emissions: The Permittee shall check SV 002 (associated with CE 002) for any visible emissions during daylight hours, once each day of operation.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, and whether or not any VEs were observed.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: If visible emissions (VEs) are observed, the Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate the VEs. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007. 0800, subp. 5

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: CE 003 Packed-Gas Adsorption Column

Associated Items: EU 025 Fermenter

EU 026 Fermenter EU 027 Fermenter EU 028 Beer Well

What to do	Why to do it
Volatile Organic Compounds: greater than or equal to 98 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 6 inches of water column or as determined once normal operation has begun.	Title I Condition: Equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Water flow rate: greater than or equal to 5 gallons/minute or as determined once normal operation has begun. (Inlet Water Flow Rate)	Title I Condition: Equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Record the pressure drop and water flow rate once each day of operation.	Title I Condition: Monitoring of equipment operating parameters to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
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
If necessary, the Permittee shall apply for an amendment to update the pressure drop range given for this control device once vendor data is available or after actual normal operating data has been obtained. If necessary, the Permittee shall apply for the amendment no later than 60 days after startup of the control device.	Minn. R. 7007.1150
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
Calibrate the water flowmeter 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

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: CE 004 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

Associated Items: EU 015 Grain Dryer

What to do	Why to do it
Particulate Matter < 10 micron: greater than or equal to 99 percent collection efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Total Particulate Matter: greater than or equal to 99 percent collection efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 6 inches of water column or as determined once normal operation has begun.	Title I Condition: Equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Record pressure drop once each day of operation.	Title I Condition: Monitoring of equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
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
If necessary, the Permittee shall apply for an amendment to update the pressure drop range given for this control device once vendor data is available or after actual normal operating data has been obtained. If necessary, the Permittee shall apply for the amendment no later than 60 days after startup of the control device.	Minn. R. 7007.1150
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

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: CE 005 Packed-Gas Adsorption Column

Associated Items: EU 009 Beer Stripper

EU 010 Rectifyer
EU 011 Side Stripper
EU 012 Molecular Sieve

TK 001 Corn Mash
TK 002 Corn Mash
TK 003 Corn Mash
TK 004 Corn Mash

TK 005 Ethanol (CAS #64-17-5), 95%

TK 005 Ethanol (CAS #64-17-5), 95%	
What to do	Why to do it
Volatile Organic Compounds: greater than or equal to 98 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 6 inches of water column or as determined once normal operation has begun.	Title I Condition: Equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Water flow rate: greater than or equal to 5 gallons/minute or as determined once normal operation has begun. (Inlet Water Flow Rate)	Title I Condition: Equipment operating parameter to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14
Record pressure drop and water flow rate once each day of operation.	Title I Condition: Monitoring of equipment operating parameters to avoid major source classification under 40 CFR Section 52.21; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
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
If necessary, the Permittee shall apply for an amendment to update the pressure drop range given for this control device once vendor data is available or after actual normal operating data has been obtained. If necessary, the Permittee shall apply for the amendment no later than 60 days after startup of the control device.	Minn. R. 7007.1150
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
Calibrate the water flowmeter 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

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: TK 006 Ethanol (CAS #64-17-5), 95%

What to do	Why to do it
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity.	40 CFR Section 60.116b(b); Minn. R. 7011.1520 (C)

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: TK 007 Ethanol (CAS #64-17-5), 100%

What to do	Why to do it
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity.	40 CFR Section 60.116b(b); Minn. R. 7011.1520 (C)

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: TK 008 Unleaded Gas (CAS #8006-61-9), 100%

What to do	Why to do it
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity.	40 CFR Section 60.116b(b); Minn. R. 7011.1520 (C)

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: TK 009 Ethanol (CAS #64-17-5), 95%; Unleaded Gas (CAS #8006-61-9), 5%

internal floating roof meeting the specifications of paragraph (a)(1) of this section.  The internal floating roof shall be equipped with the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:  (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.  Visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with 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 owner or operator shall repair the items before filling the storage vessel.  Visually inspect the internal floating roof, the primary seal, and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill as required by this paragraph.  For vessels equipped with a double-seal system as specified in 40 CFR Section 60.113b(a)(3); Minn. R. 7011.152 (C)  40 CFR Section 60.113b(a)(1); Minn. R. 7011.152 (C)  40 CFR Section 60.113b(a)(1); Minn. R. 7011.152 (C)  40 CFR Section 60.113b(a)(2); Minn. R. 7011.152 (C)  40 CFR Section 60.113b(a)(3); Minn. R. 7011.152 (C)	Subject item: 1K 009 Ethanol (CAS #64-17-5), 95%; Unleaded Gas (CAS #8006-61-9), 5%		
internal floating roof meeting the specifications of paragraph (a)(1) of this section.  The internal floating roof shall be equipped with the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:  (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.  Visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with 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 owner or operator shall repair the items before filling the storage vessel.  Visually inspect the internal floating roof, the primary seal, and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill as required by this paragraph.  For vessels equipped with a double-seal system as specified in 40 CFR Section 60.113b(a)(1); Minn. R. 7011.152  40 CFR Section 60.113b(a)(1); Minn. R. 7011.152  40 CFR Section 60.113b(a)(2); Minn. R. 7011.152  40 CFR Section 60.113b(a)(3); Minn. R. 7011.152  40 CFR Section 60.113b(a)(3); Minn. R. 7011.152  40 CFR Section 60.113b(a)(3); Minn. R. 7011.152	What to do	Why to do it	
between the wall of the storage vessel and the edge of the internal floating roof:  (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.  Visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with 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 owner or operator shall repair the items before filling the storage vessel.  Visually inspect the internal floating roof, the primary seal, and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill as required by this paragraph.  For vessels equipped with a double-seal system as specified in 40 CFR Section 60.113b(a)(3); Minn. R. 7011.152 do CFR Section 60.113b(a)(2); Minn. R. 7011.152 do CFR Section 60.113b(a)(3); Minn. R. 7011.152 do CFR Section 60.113b(a)(1); Minn. R. 7011.152 do CFR Section 60.113b(a)(3); Minn. R		40 CFR Section 60.112b(a); Minn. R. 7011.1520 (C)	
prior to filling the storage vessel with 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 owner or operator shall repair the items before filling the storage vessel.  Visually inspect the internal floating roof, the primary seal, and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill as required by this paragraph.  For vessels equipped with a double-seal system as specified in 40 CFR Section 60.113b(a)(3); Minn. R. 7011.152 do.112b(a)(1)(ii)(B):  (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least	etween the wall of the storage vessel and the edge of the internal floating roof:  B) Two seals mounted one above the other so that each forms a continuous osure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted,		
through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill as required by this paragraph.  For vessels equipped with a double-seal system as specified in 40 CFR Section 60.112b(a)(1)(ii)(B):  (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least	rior to filling the storage vessel with VOL. If there are holes, tears, or other benings in the primary seal, the secondary seal, or the seal fabric or defects in the ternal floating roof, or both, the owner or operator shall repair the items before	40 CFR Section 60.113b(a)(1); Minn. R. 7011.1520 (C)	
60.112b(a)(1)(ii)(B): (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least	rough manholes and roof hatches on the fixed roof at least once every 12 months	40 CFR Section 60.113b(a)(2); Minn. R. 7011.1520 (C)	
(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.	0.112b(a)(1)(ii)(B):  1 Visually inspect the vessel as specified in paragraph (a)(4) of this section at least very 5 years; or	40 CFR Section 60.113b(a)(3); Minn. R. 7011.1520 (C)	
Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed as required by this paragraph. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.	askets, slotted membranes and sleeve seals (if any) each time the storage vessel emptied and degassed as required by this paragraph. In no event shall spections conducted in accordance with this provision occur at intervals greater an 10 years in the case of vessels conducting the annual visual inspection as pecified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no reater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this	40 CFR Section 60.113b(a)(4); 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 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.	ears 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 30 days of the inspection. The report shall entify the storage vessel and the reason it did not meet the specifications of 40 FR Section 60.112b(a)(1) or 40 CFR Section 60.113b(a)(3)(ii) and list each repair	40 CFR Section 60.115b(a)(4); Minn. R. 7011.1520 (C)	
Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section as required in this paragraph.	ach storage vessel for which an inspection is required by paragraphs (a)(1) and	40 CFR Section 60.115b(a)(5); Minn. R. 7011.1520 (C)	
Keep a record of each inspection performed as required by 40 CFR Section 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). 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).	0.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage essel on which the inspection was performed and shall contain the date the vessel as inspected and the observed condition of each component of the control	40 CFR Section 60.115b(a)(2); Minn. R. 7011.1520 (C)	
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity.  40 CFR Section 60.116b(b); Minn. R. 7011.1520 (		40 CFR Section 60.116b(b); Minn. R. 7011.1520 (C)	

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: TK 010 Ethanol (CAS #64-17-5), 95%; Unleaded Gas (CAS #8006-61-9), 5%

Subject item: TK 010 Ethanol (CAS #64-17-5), 95%; Unleaded Gas (CAS #8006-61-9), 5%		
Why to do it		
40 CFR Section 60.112b(a); Minn. R. 7011.1520 (C)		
40 CFR Section 60.112b(a)(1)(ii)(B); Minn. R. 7011.1520 (C)		
40 CFR Section 60.113b(a)(1); Minn. R. 7011.1520 (C)		
40 CFR Section 60.113b(a)(2); Minn. R. 7011.1520 (C)		
40 CFR Section 60.113b(a)(3); Minn. R. 7011.1520 (C)		
40 CFR Section 60.113b(a)(4); Minn. R. 7011.1520 (C)		
40 CFR Section 60.115b(a)(4); Minn. R. 7011.1520 (C)		
40 CFR Section 60.115b(a)(5); Minn. R. 7011.1520 (C)		
40 CFR Section 60.115b(a)(2); Minn. R. 7011.1520 (C)		
40 CFR Section 60.116b(b); Minn. R. 7011.1520 (C)		

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: FS 001 Facility truck traffic fugitive emissions

What to do	Why to do it
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

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: FS 002 Grain handling fugitive emissions

What to do	Why to do it
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)
Opacity: less than or equal to 5 percent opacity for fugitive emissions from truck unloading of grain or grain handling activities.	Minn. R. 7011.1005, subp. 3(A)

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Subject Item: FS 004 DDGS handling fugitive emissions

What to do	Why to do it
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)
Opacity: less than or equal to 5 percent opacity for fugitive emissions from railcar loading of DDGS or DDGS handling activities.	Minn. R. 7011.1005, subp. 3(A)
Opacity: less than or equal to 10 percent opacity for fugitive emissions from DDGS truck loading.	Minn. R. 7011.1005, subp. 3(B)

TABLE B: SUBMITTALS 07/31/97

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

Table B lists the submittals you must send to the Commissioner. Table B is divided into two sections, for source-specific submittal requirements and for submittals required of all permittees. Source-specific submittals are further organized as either one-time only or recurrent requirements. You may also be subject to additional reporting requirements contained in the compliance schedule located in Table C of this permit. All submittals must be postmarked or received by the date specified in the table, and certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Submittals which must be provided on standardized forms approved by the Commissioner are noted in Tables B and C.

Send any application for a permit or permit amendment to: Permit Information Coordinator, Permit Section, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4914. Also send the Permit Information Coordinator notices of: accumulated insignificant activities, installation of control equipment, replacement of an emissions unit, and changes that contravene a permit term.

Send all other submittals to: Compliance Tracking Coordinator, Compliance Determination Unit, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

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

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

What to send	When to send	Portion of Facility Affected		
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	CE003, CE005, EU015, EU018, EU024, TK009, TK010		
Notification of the Anticipated Date of Initial Startup	due 30 days before Anticipated Date of Initial Startup but not more than 60 days prior to such date.	EU018, TK009, TK010		
Notification of the Date Construction Began	due 30 days after Start Of Construction	EU018, TK009, TK010		
Performance Test Notification (written)	due 30 days before Initial Performance Test	SV003, SV004, SV010, SV011, SV014		
Performance Test Plan	due 30 days before Initial Performance Test	SV003, SV004, SV010, SV011, SV014		
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test	SV003, SV004, SV010, SV011, SV014		
Performance Test Report	due 45 days after Initial Performance Test	SV003, SV004, SV010, SV011, SV014		
Report	due 15 days after Initial Startup describing the control equipment and certifying that the control equipment meets the specifications of Section 60.112b(a)(1). This report shall be an attachment to the notification required by Section 60.7(a)(3).	TK009, TK010		
Testing Frequency Plan	due 60 days after Initial Performance Test for nitrogen oxides emissions. The plan shall specify a testing frequency using the test data and MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	SV011		
Testing Frequency Plan	due 60 days after Initial Performance Test for total particulate matter and particulate matter <10 microns emissions. The plan shall specify a testing frequency using the test data and MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	SV014		
Testing Frequency Plan  due 60 days after Initial Performance Test total particulate matter, particulate matter microns, volatile organic compounds, and nitrogen oxides emissions. The plan shal specify a testing frequency using the test and MPCA guidance. Future performance tests based on year (12 month), 36 month and 60 month intervals, or as applicable, be required on written approval of MPCA Minn. R. 7017.2020, subp.1.		SV004		
Testing Frequency Plan	due 60 days after Initial Performance Test for volatile organic compound emissions. The plan shall specify a testing frequency using the test data and MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	SV003, SV010		

#### **TABLE B: RECURRENT SUBMITTALS**

Facility Name: Corn-er Stone Farmer's Cooperative Inc

Permit Number: 13300023 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Initial Startup of the facility. The first report covers January 1st - June 30th. The second report covers July 1st - December 31st.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Initial Startup of the facility. The report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1st). To be submitted on a form approved by the Commissioner.	Total Facility

# TECHNICAL SUPPORT DOCUMENT For AIR EMISSION PERMIT NO. 13300023-001

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

#### 1. General Information

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

Owner Address	Facility Address
	(SIC Code: 2869)
Corn-er Stone Farmer's Cooperative, Inc.	Walnut Street (number not yet assigned)
P.O. Box 871	Luverne, Minnesota 56156
Luverne, Minnesota 56156	Rock County

#### 1.2. Description Of The Permit Action

The Permittee requested a permit to construct and operate a new 15,000,000 gallon per year fuel ethanol plant in Luverne, Rock County, Minnesota. The permit contains conditions limiting the air emissions to less than 100 tons per year for each criteria pollutant. Thus, the facility will be considered a non-major source under 40 CFR 70, Minn. R. 7007.0200, and 40 CFR 52.21.

An Environmental Assessment Worksheet (EAW) for this project is mandatory under Minn. R. 4410.4300, subp. 5(B), and has been completed.

The permit application was first received on January 17, 1997. Information to complete the application was received on March 20, 1997.

#### 1.3. Description Of Changes Made Since the Public Notice

The following changes were made to the permit following the public notice. None of the changes result in the need to re-notice the permit.

1. The emission limits for total particulate matter (PM) and particulate matter smaller than 10 microns (PM<sub>10</sub>) at SV001 were changed to 1.5 lb/hr, from 0.02 gr/dscf. This change was requested by EPA when reviewing a similar permit, since a limit in gr/dscf without an associated limit on the air flow does not result in an enforceable limit on PTE. The change was made here for consistency. The resulting potential emissions of 6.57 tpy remains the same.

- 2. The emission limits for PM and PM<sub>10</sub> at SV002 were changed to 0.69 lb/hr, from 0.02 gr/dscf, for the same reasons listed above. Again, the resulting potential emissions of 3.0 tpy remain the same.
- 3. Requirements for periodic calibration of the water flowmeters associated with CE003 and CE005 were added. This was requested by EPA in a similar permit, and was added here for consistency.
- 4. The control efficiencies for CE001, CE002, CE003, CE004, and CE005 were specified in the permit. No additional monitoring, testing, or recordkeeping was added. This change was also requested by EPA in a similar permit. This is considered to be required, per the June 1989 EPA guidance memo on limiting potential to emit.
- 5. The total potential VOC emissions are different that what appeared in the public notice. The permit was public noticed with potential VOC emissions of 78.67 tpy. This number was based in part on the fugitive VOC emissions from equipment leaks (fugitives must be included because this is one of the 28 source categories from 40 CFR 52.21). The calculations were based on incorrect emission factors. The error was discovered and corrected. The permit need not be re-noticed, because the total emissions are lower than originally noticed.

## 1.4. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

FS*	SV*	Emission Unit	PM	$PM_{10}$	$SO_2$	$NO_X$	VOC	CO	Benzene	Toluene	Total
No.	No.	Description	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy	HAPs
	001	Grain receiving and handling, DDGS	6.57	6.57							
	002	handling and shipping Hammermill	3.0	3.0							
			3.0	3.0			28.68				
	003	Fermentation equipment	50.0	50.0	4.6	20.02		2.70			
	004	DDGS dryer	50.0	50.0	4.6	28.03	26.85	3.79			
	005	Tank - 95% ethanol					0.34				
	006	Tank - 100% ethanol					0.98				
	007	Tank - Unleaded gasoline					2.21		0.11	0.11	0.11
	008	Tank - Denatured ethanol					0.15		0.008	0.008	0.008
	009	Tank - Denatured ethanol					0.15		0.008	0.008	0.008
	010	Distillation equipment					1.08				
	011	Boiler	2.4	2.4	0.21	55.01	2.0	13.96			
	012	Distillation building					11.24				
	013	DDGS storage	8.2	2.1							
	014	DDGS cooling cyclone	6.13	6.13							
001		Truck traffic	9.38	3.38							
002		Grain handling	3.35	3.35							
003		Ethanol loading					2.69				
004		DDGS handling	0.18	0.18							
		TOTAL	89.21	77.11	4.81	83.04	76.37	17.75	0.1255	0.1255	0.1255

Table 2. Facility and Permit Classification

Classification	Major	Synthetic Minor	Minor
PSD	none	$PM$ , $PM_{10}$ , $VOC$ , $NO_X$ ,	SO <sub>2</sub> , CO, Pb
NAAR	N/A	N/A	N/A
Title V Permit Program	none	PM <sub>10</sub> , VOC, NO <sub>X</sub> ,	SO <sub>2</sub> , CO, Pb, HAPs

<sup>\*</sup>SV = Stack/Vent \*FS = Fugitive Source

## 2. Regulatory and/or Statutory Basis

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

# **Overview of Facility**

Item	Applicable Regulations	Comments
SV001, SV002,	40 CFR 52.21,	Limits on PM and PM <sub>10</sub> to keep facility minor
SV004	40 CFR 70.2,	for PSD and Part 70. PM limits are lower than
	Minn. R. 7007.0200	required by Minnesota's Standards of
		Performance for Dry Bulk Agricultural
		Commodity Facilities
SV001, SV002,	Minn. R. 7011.1005	Limits on opacity of stack emissions
SV004		
SV003, SV004,	40 CFR 52.21,	Limit on VOC emissions to keep facility minor
SV010	40 CFR 70.2,	for PSD and Part 70.
	Minn. R. 7007.0200	
SV004, SV011	40 CFR 52.21,	Limit on NO <sub>X</sub> emissions to keep facility minor
	40 CFR 70.2,	for PSD and Part 70.
	Minn. R. 7007.0200	
SV003, SV010,	Minn. R. 7011.0715	Limits on opacity of stack emissions
SV014		
SV014	40 CFR 52.21,	Limits on PM and PM <sub>10</sub> to keep facility minor
	40 CFR 70.2,	for PSD and Part 70. PM limit is lower than
	Minn. R. 7007.0200	required by Industrial Process Equipment Rule.
EU024	Minn. R. 7007.0800	Pressure drop limits on pollution control
		equipment (operated as an emission unit)
CE001, CE002	Minn. R. 7007.0800	Requirements to check for visible emissions
		from baghouses. If VEs present, take corrective
		action
CE003, CE004,	Minn. R. 7007.0800	Pressure drop limits on pollution control
CE005		equipment, required to meet synthetic minor
		limits
CE003, CE005	Minn. R. 7007.0800	Water flow rate limits on pollution control
		equipment, required to meet synthetic minor
		limits
FS002, FS004	Minn. R. 7011.1005	Limits on opacity of fugitive emissions
EU018, TK009,	40 CFR 60.7	Notification of initial startup for NSPS affected
TK010		facilities
CE003, CE005,	Minn. Stat. 116.07	Notification of initial startup for non-NSPS
EU015, EU024		affected facilities, to determine dates for initial
		performance tests

CE003, CE004,	to make permit federally enforceable, per EPA
CE005	comments. Parametric modeling sufficient for
	compliance purposes.

#### 3. Conclusion

Based on the information provided by the Corn-er Stone Farmer's Cooperative, the MPCA has reasonable assurance that the proposed construction and operation of the emission facility, as described in Air Emission Permit No. 13300023-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

#### Attachments:

**Emission calculations** 

Application Forms: GI-04

GI-05A GI-05B GI-05C GI-05D