

**AIR EMISSION PERMIT NO. 09100062-003**

**IS ISSUED TO**

**VALERO RENEWABLE FUELS COMPANY, LLC**

**d/b/a VALERO WELCOME PLANT**

1444 120th Street

Welcome, Martin County, MN 56181

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

Permit Type	Application Date
Total Facility Operating Permit	01/18/2006
NSPS Notification Amendment	04/10/2008
Administrative Amendment	04/23/2008
Major Amendment	05/01/2008
Administrative Amendment	02/09/2009
Administrative Amendment	04/09/2009

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

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

**Issue Date:** February 8, 2010

**Expiration:** Permit does not expire  
All Title I Conditions do not expire.

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

for Paul Eger  
Commissioner  
Minnesota Pollution Control Agency

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**NOTICE TO THE PERMITTEE:**

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

Metro Area	651-296-6300
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:**

Valero Renewable Fuels Company, LLC (Valero) is constructing a dry mill fuel ethanol facility located near Welcome, Minnesota in the southern half of Sections 5 and 6, Township 102N. The facility will be minor with respect to 40 CFR § 52.21 and 40 CFR § 70.2. The facility will have a maximum ethanol production capacity of 118 million gallons per year (undenatured, before addition of denaturant).

The facility will fire only pipeline quality natural gas in conventional Distillers Dried Grains with Solubles (DDGS) dryers and two Thermal Oxidizers with Heat Recovery Steam Generators (TO/HRSGs). The DDGS dryer emissions will be controlled by the two TO/HRSGs. The TO/HRSGs will also consume the air used in the DDGS cooler, combust methane generated at the biomethanators, and consume gasses evolved from the distillation process. The facility will use a wet scrubber to clean carbon dioxide produced in the fermentation process before emission to the atmosphere, and have dust collection systems for material handling typical to the industry. The denatured ethanol product will be loaded out to both trucks and rail cars and emissions from the loadout process will be controlled by a flare. The non-process water will be partially evaporated and partially treated and recycled using a brine concentration “zero-discharge” system.

### **Air Emission Permit No. 09100062-001**

This State Permit was the initially issued permit authorizing construction and operation of the facility as described above.

### **Air Emission Permit No. 09100062-002**

This Administrative Amendment authorized a 120-day extension of the deadline to submit a Diesel Emissions Idling Plan. This change appears in the Total Facility section of the permit. The address and contact information was also updated in this permit action.

### **Air Emission Permit No. 09100062-003**

This Major Amendment includes a number of changes to the Valero air emission permit. In this permit action, the thermal oxidizer internal inspection frequency will be changed from quarterly to the frequency recommended by the manufacturer, not to exceed 18 months between inspections. This reduced inspection frequency is consistent with other facilities employing similar thermal oxidizer units. Various changes to facility component design parameters resulted in an additional ambient air impacts analysis via modeling. Revised modeling parameters are included in the Appendix to this permit action. The modeling results indicate that a truck traffic speed limit change to 10 mph through most of the facility can be accommodated, in addition to an increased ratio of straight trucks to hopper trucks. Emission changes associated with the scope of this major amendment are relatively small and do not affect overall regulatory applicability for the facility.

This permit action will also include three additional, separate actions applied for by Valero. First, an Administrative Amendment will be rolled into Air Emission Permit No.09100062-003. The scope of this amendment is primarily to change the operator's descriptions for various emission units, remove redundant monitoring requirements, add applicable requirements that were not included in Air Emission Permit No. 09100062-001 or 09100062-002, and to correct typographical errors. The second additional permit action is for addition of a New Source Performance Standards Subpart Dc natural gas fired boiler (16.738 MMBtu/hr heat input capacity with ultra low Nitrogen Oxides burners) to the facility's water treatment system. Because the potential emissions from this boiler are inherently low, no additional control equipment will be installed. New applicable requirements for the boiler include recordkeeping and reporting. The third additional permit action is for changing facility ownership from VeraSun Energy Corporation to Valero Renewable Fuels Company, LLC. The previously issued air emission permits referred to the facility name as "VeraSun Welcome, LLC," and upon issuance of this permit action the facility name will be "Valero Renewable Fuels Company, LLC d/b/a Valero Welcome Plant."

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-1 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

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

**Subject Item:****Total Facility**

<b>What to do</b>	<b>Why to do it</b>
<b>OPERATIONAL LIMITS</b>	hdr
Production: less than or equal to 118 million gallons/year using 12-month Rolling Sum of ethanol (200 proof, prior to addition of denaturant).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
<b>FACILITY WIDE LIMITS</b>	hdr
HAPs - Total: less than or equal to 24.0 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period.	Limit to avoid major source classification under 40 CFR Section 63.2
HAP-Single: less than or equal to 9.0 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period.	Limit to avoid major source classification under 40 CFR Section 63.2
<b>OPERATIONAL REQUIREMENTS</b>	hdr
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
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
<b>PERFORMANCE TESTING</b>	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A and/or B.	Minn. R. ch. 7017

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-2** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test  Performance Test Plan: due 30 days before each Performance Test  Performance Test Pre-test Meeting: due 7 days before each Performance Test  Performance Test Report: due 45 days after each Performance Test  Performance Test Report - Microfiche or CD Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	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
<b>MONITORING REQUIREMENTS</b>	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
<b>RECORDKEEPING</b>	hdr
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
The Permittee shall record the ethanol production rate hourly. By the 15th day of the month, the Permittee shall calculate the number of gallons of ethanol produced during the previous 12-month period.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
<b>REPORTING/SUBMITTALS</b>	hdr
<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>	Minn. R. 7019.1000, subp. 3
<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>	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

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-3** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

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 on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
The Permittee must submit a Risk Management Plan (RMP) under 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. An initial RMP must be submitted no later than the latest of the following dates: 1) June 21, 1999; 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or 3) The date on which a regulated substance is first present above a threshold quantity in a process. A full update and resubmission of the RMP is required at least once every five years. The five-year anniversary date is reset whenever your facility fully updates and resubmits their RMP. Submit RMPs to the Risk Management Plan Reporting Center, P.O. Box 1515, Lanham-Seabrook, Maryland 20703-1515. RMP information may be obtained at <a href="http://www.epa.gov/swercepp">http://www.epa.gov/swercepp</a> or by calling 1-800-424-9346.	40 CFR pt. 68
MODELING REQUIREMENTS	hdr
Parameters Used in Modeling: The parameters used in the modeling performed for an Environmental Assessment Worksheet under Minn. R. ch. 4410 for this facility are listed in Appendix II of this permit. If the Permittee intends to change any of these parameters, the Permittee must submit the revised parameters to the Commissioner and receive written approval before making any changes. The revised parameter information submittal must include, but is not limited to: the locations, heights and diameters of the stacks; locations and dimensions of nearby buildings; velocity and temperatures of the gases emitted; and the emission rates. The plume dispersion characteristics due to the parameter revisions must equal or exceed the dispersion characteristics modeled for this permit, and the Permittee shall demonstrate this in the proposal.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0800, subps. 1, 2 & 4
Parameters Used in Modeling (continued):  If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must remodel.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0800, subps. 1, 2 & 4
Parameters Used in Modeling (continued):  Pollutant Emission Rates: If the Permittee proposes to emit any pollutant in addition to those listed in Appendix II of this permit, or proposes to increase the emission rate of any pollutant listed in Appendix II, the Permittee shall first use the VeraSun Welcome Air Emissions Risk Analysis (AERA) report as a template for recalculating the risk due to the change in emissions. The Permittee shall submit a report to the MPCA of the proposed change and demonstrate that the recalculated risk for all pollutants emitted from the facility does not exceed the acceptable risk criteria used in the VeraSun Welcome AERA report. The Permittee must receive written approval from the MPCA before making any changes.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0800, subps. 1, 2 & 4



**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-4** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

<p>Parameters Used in Modeling (continued):</p> <p>For changes that do not involve an increase in an emission rate and that do not require a permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter.</p> <p>For changes involving increases in emission rates and that require a minor permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter.</p> <p>For changes involving increases in emission rates and that require a permit amendment other than a minor amendment, the proposal must be submitted prior to or with the permit amendment application.</p> <p>This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.</p>	<p>Minn. Stat. Section 116.07, subds. 4a &amp; 9; Minn. R. 7007.0100, subp. 7(A), 7(L), &amp; 7(M); Minn. R. 7007.0800, subps. 1, 2 &amp; 4; Minn. R. 7009.0010-7009.0080; Minn. Stat. Section 116.07, subds. 4a &amp; 9; Minn. R. 7007.0800, subps. 1, 2 &amp; 4</p>
<p>The parameters used in PM10 modeling are listed in Appendix II of this permit.</p> <p>For any changes that affect any modeled parameter or PM10 emission rate documented in Appendix II, a Remodeling Submittal requirement is triggered. This includes changes that do not require a permit amendment as well as changes that require any type of permit amendment.</p>	<p>Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000</p>
<p>Remodeling Submittal: The Permittee must submit to the Commissioner for approval any revisions of these parameters and must wait for a written approval before making such changes. For changes that don't require a moderate or major amendment, written approval of the modeling may be given before permit issuance; however, the approval applies only to the modeling and not to any other changes. The information submitted must include, for stack and vent sources, source emission rate, location, height, diameters, exit velocity, exit temperature, discharge direction, use of rain caps or rain hats, and, if applicable, locations and dimensions of nearby buildings. For non-stack/vent sources, this includes the source emission rate, location, size and shape, release height, and, if applicable, any emission rate scalars, and the initial lateral dimensions and initial vertical dimensions and adjacent building heights.</p>	<p>Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000</p>
<p>The plume dispersion characteristics due to the revisions of the information must be equivalent to or better than the dispersion characteristics modeled May 1, 2008. The Permittee shall demonstrate this equivalency in the proposal. If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must submit full remodeling.</p>	<p>Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000</p>
<p>The Permittee shall install fencing around the facility. The fencing shall be fully installed prior to the receipt of corn at the facility. In areas where fencing is not permissible by set backs, right-of-ways, safety concerns, or clearances, the Permittee will commit to installation of signage and patrolling to sufficiently restrict public access to the property outlined as fenced in the dispersion modeling.</p>	<p>Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2</p>
<p>The Permittee has submitted a Diesel Emission Idling Prevention Plan, which has been approved by MPCA. The Diesel Emission Idling Plan shall be fully implemented until revisions are required by MPCA.</p>	<p>Minn. R. 7009.0020; Minn. R. 7007.0800, subp. 2</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-5** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** GP 002 Limit of DDGS Cooler By-pass of Thermal Oxidizers**Associated Items:** EU 072 Cooling Drum Bypass (AOS)

SV 019 Cooling Drum By-Pass (AOS)

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 1.0 tons/year using 12-month Rolling Sum calculated from actual test data and actual hours of bypass of Thermal Oxidizers (CE 007 and CE 009).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Volatile Organic Compounds: less than or equal to 5.0 tons/year using 12-month Rolling Sum calculated from actual test data and actual hours of bypass of Thermal Oxidizers (CE 007 and CE 009).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Bypass emissions are subject to the facility-wide HAP limits set under the Total Facility section of the permit.	Title I Condition: Limit to avoid major source classification under 40 CFR Section 63.2
Hours of operation: DDGS Cooler Bypass of thermal oxidizer hours of operation limited to less than or equal to 4870 hours per year.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
RECORDKEEPING	hdr
The Permittee shall record daily the number of hours the DDGS Cooling Drum Bypass is used. By the 15th day of the month, the Permittee shall calculate the number of hours that the DDGS Cooling Drum Bypass was used during the previous 12-month period.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-6** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** GP 003 Material Handling Baghouse Monitoring Requirements**Associated Items:** CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 002 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 003 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

SV 001 Grain Receiving Baghouse Stack

SV 002 DDGS Baghouse Stack

SV 003 Hammermill Baghouse (CE 003)

What to do	Why to do it
Visible Emissions: The Permittee shall check the fabric filter stacks (SV 001, SV 002 and SV 003) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-7** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: GP 005 Tanks Subject to NSPS Subp. Kb****Associated Items:** TK 001 190 proof EtOH

TK 002 200 proof EtOH

TK 003 Denaturant

TK 004 Denatured EtOH

TK 005 Denatured Et OH

What to do	Why to do it
<b>POLLUTION CONTROL REQUIREMENTS</b>	hdr
Each storage vessel in GP 005 shall be equipped with a fixed roof in combination with an internal floating roof meeting the specifications of 40 CFR Section 60.112 b (a)(1).	40 CFR Section 60.112b(a); Minn. R. 7011.1520(C)
Each internal floating roof shall be equipped with two seals mounted above one another 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.	40 CFR Section 60.112 b(a)(1)(ii)(B); Minn. R. 7011.1520(C)
The lower seal may be vapor-mounted, but both must be continuous.	
<b>MONITORING REQUIREMENTS</b>	hdr
Visually inspect the internal floating roof, the primary seal, and the secondary seal prior to filling the storage vessel with Volatile Organic Liquid (VOL). If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric, or defects in the internal floating roof, or both, the Permittee shall repair the items before filling the storage vessel.	40 CFR Section 60.113(a)(1); Minn. R. 7011.1520(C)
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 twelve (12) months after initial fill as required by this paragraph.	40 CFR Section 60.113(b)(a)(3)(ii); 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 each storage vessel is emptied and degassed as required by 40 CFR Section 60.113b(a)(3)(i). Inspections conducted in accordance with this provision occur at least every five (5) years.	40 CFR Section 60.113b(a)(3)(i); Minn. R. 7011.1520(C)
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 40 CFR 60.113b(a)(2) and 40 CFR b(a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph 40 CFR 60.113b(a)(3)(i) of this section.	40 CFR Section 60.113b(a)(4); Minn. R. 7011.1520(C)
<b>RECORDKEEPING REQUIREMENTS</b>	hdr
Recordkeeping: Maintain records showing the dimensions of each tank and an analysis showing each tank's capacity.	40 CFR Section 60.116b(b); Minn. R. 7011.1520(C)
Keep a record of each inspection performed as required by 40 CFR Section 60.113b(a)(1), (a)(2), and (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).	40 CFR Section 60.115b(a)(2); Minn. R. 7011.1520(C)
<b>REPORTING REQUIREMENTS</b>	hdr
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 why it did not meet the specifications of 40 CFR Section 60.113b(a)(1) or 40 CFR Section 60.113b(a)(3)(ii) and list each repair made.	40 CFR Section 60.115b(a)(4); Minn. R. 7011.1520(C)
Notification: If an inspection is required (under 40 CFR Section 60.113b(a)(1) or 40 CFR Section 60.113b(a)(3)(i)), notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel, to afford the Administrator the opportunity to have an observer present. If the inspection is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the storage vessel, Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned.	40 CFR Section 60.113b(a)(5); Minn. R. 7011.1520 (C)
Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to refilling.	

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-8**

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** GP 008 DDGS Dryers**Associated Items:** EU 051 Anaerobic Digester (Methanator)

EU 052 DDGS Dryer A

EU 053 DDGS Dryer B

EU 056 DDGS Dryer C

EU 057 DDGS Dryer D

What to do	Why to do it
The Permittee shall vent all gasses to the Thermal Oxidizer/Heat Recovery Steam Generators (CE 007 and CE 009).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the DDGS Dryers in accordance with the Operation and Maintenance (O & M) Plan.	Minn. R. 7007.0800 supb. 4
Fuel Combusted: Limited to natural gas only.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-9** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** GP 009 Thermal Oxidizers**Associated Items:** CE 007 Thermal Oxidizer

CE 009 Thermal Oxidizer

What to do	Why to do it
Volatile Organic Compounds: greater than or equal to 95.0 percent control efficiency . This limit applies individually to each thermal oxidizer.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Total Particulate Matter: greater than or equal to 90.0 percent control efficiency . This limit applies individually to each thermal oxidizer.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Temperature: greater than or equal to 1400 degrees F as a three-hour rolling average at the Combustion Chamber unless a new minimum temperature is required set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum temperature is required to be set, it will be based on the average temperature recorded during the most recent MPCA approved performance test where compliance for VOC emissions was demonstrated. If the three-hour rolling average temperature drops below the minimum temperature limit, the VOC used during that time shall be considered uncontrolled until the average minimum temperature limit is once again achieved. This shall be reported as a deviation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the thermal oxidizer any time that any process equipment controlled by the thermal oxidizer is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7007.0800, subp. 4 and 5
Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.	Minn. R. 7007.0800, subp. 4 and 5
Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required.	Minn. R. 7007.0800, subp. 4
The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature.	Minn. R. 7007.0800, subp. 4 and 5
Internal Inspections: At least every eighteen months (or more frequently if recommended by the manufacturer), the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems in accordance to the manufacturer's recommended procedures. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14
Annual Calibration: The Permittee shall calibrate the temperature monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 4, 5, and 14
For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee shall use either one of the following when completing calculations as required elsewhere in this permit: a. The overall control efficiency limit specified in this permit for this equipment (95%); or b. The overall control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7007.0800, subp. 4 and 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-10**

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14
The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-11** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: SV 001 Grain Receiving Baghouse Stack****Associated Items:** EU 001 Truck Receiving Dump Pit & Transfer Drag #1

EU 002 Receiving Leg #1

EU 003 Corn Center Fill Conveyor #1

EU 004 Grain Silo Bin #1

EU 005 Silo Reclaim Conveyor #1

EU 006 Silo Reclaim Conveyor #2

EU 007 Truck Receiving Dump Pit &amp; Transfer Drag #2

EU 008 Receiving Leg #2

EU 009 Corn Center Fill Conveyor #2

EU 010 Grain Silo Bin #2

EU 011 Silo Reclaim Conveyor #3

EU 012 Grain Silo Bin #3

EU 013 Grain Silo Bin #4

EU 074 Grain Silo Bin #5

EU 075 Silo Reclaim Conveyor #4

EU 076 Silo Reclaim Conveyor #5

EU 077 Rail Receiving Dump Pit &amp; Receiving Drag

EU 078 Scalping Bin #6A

GP 003 Material Handling Baghouse Monitoring Requirements

What to do	Why to do it
Total Particulate Matter: less than or equal to 1.71 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Particulate Matter < 10 micron: less than or equal to 1.71 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Opacity: less than or equal to 10.0 percent opacity	Minn. R. 7011.1005, subp. 3(D)
POLLUTION CONTROL REQUIREMENTS (CE 001)	hdr
Total Particulate Matter: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Particulate Matter < 10 micron: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 inches of water column for CE 001. See GP 003 for additional CE 001 requirements.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 545 days after 05/15/2008 to measure PM emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 545 days after 05/15/2008 to measure PM10 emissions.	Minn. R. 7017.2020, subp. 1



**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-12**

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: SV 002 DDGS Baghouse Stack**

**Associated Items:** EU 014 DDGS Inclined Drag  
 EU 015 DDGS Transfer Drag  
 EU 016 DDGS Storage Building  
 EU 017 DDGS Storage Floor Drag  
 EU 018 DDGS Storage Leg  
 EU 019 DDGS Top Fill Drag  
 EU 020 DDGS Recirc/Loadout Leg  
 EU 021 DDGS Loadout Drag  
 EU 079 DDGS Top Fill Drag  
 EU 080 DDGS Storage Bin #7  
 EU 081 DDGS Storage Bin #8  
 EU 082 DDGS Reclaim Drag  
 EU 083 DDGS Reclaim Drag  
 GP 003 Material Handling Baghouse Monitoring Requirements

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.34 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Particulate Matter < 10 micron: less than or equal to 0.34 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Opacity: less than or equal to 10.0 percent opacity	Minn. R. 7011.1005, subp. 3(D)
POLLUTION CONTROL REQUIREMENTS (CE 002)	hdr
Total Particulate Matter: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Particulate Matter < 10 micron: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 inches of water column for CE 002. See GP 003 for additional CE 002 requirements.	Minn. R. 7007.0800, subp. 2 and 14
PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 545 days after 05/15/2008 to measure PM emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 545 days after 05/15/2008 to measure PM10 emissions.	Minn. R. 7017.2020, subp. 1

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-13** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: SV 003 Hammermill Baghouse (CE 003)****Associated Items:** EU 022 Hammermill #1

EU 023 Hammermill #2

EU 024 Hammermill #3

EU 025 Hammermill #4

GP 003 Material Handling Baghouse Monitoring Requirements

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.82 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Particulate Matter < 10 micron: less than or equal to 0.82 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Opacity: less than or equal to 10.0 percent opacity	Minn. R. 7011.1005, subp. 3(D)
POLLUTION CONTROL REQUIREMENTS (CE 003)	hdr
Total Particulate Matter: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Particulate Matter < 10 micron: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 inches of water column for CE 003. See GP 003 for additional CE 003 requirements.	Minn. R. 7007.0800, subp. 2 and 14
PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due 545 days after 05/15/2008 to measure PM emissions.	Minn. R. 7017.2020, subp. 1
Performance Test: due 545 days after 05/15/2008 to measure PM10 emissions.	Minn. R. 7017.2020, subp. 1

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-14** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: SV 004 CO2 Scrubber (CE 004)****Associated Items:** EU 026 Fermentation Tank #1

EU 027 Fermentation Tank #2

EU 028 Fermentation Tank #3

EU 029 Fermentation Tank #4

EU 030 Fermentation Tank #5

EU 031 Fermentation Tank #6

EU 032 Fermentation Tank #7

EU 033 Beer Well

What to do	Why to do it
EMISSION LIMITS	hdr
Volatile Organic Compounds: less than or equal to 8.87 lbs/hour using 3-hour Rolling Average	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
OPERATIONAL REQUIREMENTS	hdr
Vent all emissions from all fermentation units and the beer well to the Wet Scrubber (CE 004).	Minn. R. 4410
POLLUTION CONTROL REQUIREMENTS (CE 004)	hdr
Volatile Organic Compounds: greater than or equal to 97.0 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Water flow rate: greater than or equal to 110.0 gallons/minute for CE 004, 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 MPCA approved performance test where compliance was demonstrated. The Permittee shall record the water flow rate once every 24 hours when in operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 6.0 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 MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the wet scrubber at all times that any emission unit controlled by the wet scrubber is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 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 wet scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the wet scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for the wet scrubber.	Minn. R. 7007.0800, subp. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored wet scrubber is in operation.	Minn. R. 7007.0800, subp. 4
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the wet scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name:        Valero Renewable Fuels Co LLC - Welcome Plant  
Permit Number:      09100062 - 003

TESTING REQUIREMENTS	hdr
Initial Performance Test: due 545 days after 05/15/2008 to measure VOC emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 545 days after 05/15/2008 to measure HAP emissions.	Minn. R. 7017.2020, subp. 1

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

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: SV 005 TO/HRSG Stack**

**Associated Items:**

- EU 034 Mixer
- EU 035 Slurry Tank #1
- EU 036 Slurry Tank #2
- EU 037 Flash Tank
- EU 038 Cook Tubes
- EU 039 Liquefaction Tank #1
- EU 040 Liquefaction Tank #2
- EU 043 Yeast Tank #1
- EU 044 Yeast Tank #2
- EU 045 Beer Column
- EU 046 Side Stripper
- EU 047 Rectifier Column
- EU 048 190 Proof Condenser
- EU 049 Molecular Sieve
- EU 050 200 Proof Condenser
- EU 051 Anaerobic Digester (Methanator)
- EU 052 DDGS Dryer A
- EU 053 DDGS Dryer B
- EU 054 Cooling Drum #1
- EU 055 TO/HRSG #1
- EU 056 DDGS Dryer C
- EU 057 DDGS Dryer D
- EU 059 TO/HRSG #2
- MR 001 NOx CEMS for TO/HRSG's
- MR 002 CO CEMS for TO/HRSG's

What to do	Why to do it
Install CO CEMS prior to conducting performance tests for SV005 and measure CO emissions from SV005.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
PERMITTED FUELS AND CAPACITIES	hdr
Fuel Use: Limited to natural gas only by design.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 9.31 lbs/hour using 3-hour Average . This limit is more stringent than that required under Minn. R. 7011.0610	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Sulfur Dioxide: less than or equal to 8.34 lbs/hour using 3-hour Average	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Nitrogen Oxides: less than or equal to 21.23 lbs/hour using 30-day Rolling Average	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Volatile Organic Compounds: less than or equal to 6.06 lbs/hour using 3-hour Average	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-17 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

Carbon Monoxide: less than or equal to 21.10 lbs/hour using 30-day Rolling Average	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
Opacity: less than or equal to 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 60 percent opacity. The limit applies at all times, except periods of startup, shutdown, or malfunction.	Minn. R. 7011.0610, subp. 1(A)(2)
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 545 days after 05/15/2008 to measure PM emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 545 days after 05/15/2008 to measure PM10 emissions.	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 545 days after 05/15/2008 to measure VOC emissions	Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 545 days after 05/15/2008 to measure HAP emissions.	Minn. R. 7017.2020, subp. 1
RECORDKEEPING AND REPORTING	hdr
Recordkeeping: Record and maintain records of the type of fuel and amounts of fuel combusted on a monthly basis. These records may consist of purchase records or receipts.	40 CFR Section 60.13(i) and February 20, 1992 EPA memorandum to meet the requirements of 40 CFR Section 60.48c(g) and (i)
The Permittee shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS. The Permittee shall submit to the Administrator the maximum heat input capacity of the affected facility.	40 CFR 60 Section 49b(b); Minn. R. 7017.1080, subp. 1, 2, & 4; 40 CFR 60.13(c)(2)
The Permittee shall maintain records of the following information for each steam generating unit operating day: (1) Calendar date. (2) The average hourly nitrogen oxides emission rates (expressed as NO <sub>2</sub> ) (ng/J or lb/MMBtu heat input) measured or predicted. (3) The 30 day average nitrogen oxides emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days. (4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions limit, with the reasons for such excess emissions as well as a description of corrective actions taken.	40 CFR 60 Section 49b(g); Minn. R. 7017.1130; 40 CFR Section 60.7(f)
(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken. (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding the data. (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted. (8) Identification of the items when the pollutant concentration exceeded full span of the continuous monitoring system. (9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3. (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.	40 CFR 60 Section 49b(g); Minn. R. 7017.1130; 40 CFR Section 60.7(f)
The Permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for each fuel for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.	40 CFR 60 Section 49b(d); Minn. R. 7017.1130; 40 CFR Section 60.7(f)
Maintain records of the fuel combusted each day and calculate annual capacity factors for each fuel.	40 CFR Section 60.49b(d); Minn. R. 7017.1130; 40 CFR Section 60.7(f)
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement, or report. Records shall be kept at the source.	40 CFR Section 60.7(f); Minn. R. 7017.1130

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-18** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** SV 006 Product Loadout Flare**Associated Items:** EU 060 Ethanol Truck Loadout

EU 061 Rail Ethanol Loadout

EU 062 EtOH Loading Rack Flare

What to do	Why to do it
The Permittee shall vent all emissions when loading ethanol to trucks or rail cars, to the flare.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Recordkeeping: The Permittee shall maintain a monthly record of the number of gallons of denatured ethanol loaded.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
EMISSION LIMITS	ndr
Flares must be designed for and operated with no visible emissions except for a period not to exceed a total of 5 minutes during any 2 consecutive hours.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Visible Emissions: The Permittee shall check the product loadout flare (SV 006) for any visible emissions once each day of operation during daylight hours while the flare is operating.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J); Minn. R. 7007.0800, subps. 4 and 5
OPERATING REQUIREMENTS	hdr
Operation Requirement: Flame presence shall be monitored using a thermocouple or any other equivalent device.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Operating Requirement: Flares shall be used only with the net heating value of the gas being combusted being 300 BTU/scf or greater if the flare is air assisted.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Operation Requirement: Flares shall be operated at all times when emissions may be vented to them.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Records Requirement: Keep a record of any startup, shutdown, or malfunction in the affected facility or a malfunction of the air pollution control equipment.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Summary report submittal frequency may be reduced according to compliance status and notification procedures defined in 40 CFR Section 60.7(e).	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Recordkeeping: Maintain a file of all measurements, calibration checks, adjustments and maintenance, and all other information required by this part in permanent form, suitable for inspection for at least two years following the date of such measurements, maintenance, and records.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Operation Requirement: At all times, including periods of startup, shutdown and malfunction, owners shall maintain and operate any affected facility in a manner consistent with good air pollution control practice for minimizing emissions.  Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Performance and Opacity test results should be sent to the Commissioner.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Air assisted flares shall be designed and operated with an exit velocity less than Vmax (as determined by the method specified in 40 CFR Section 60.18(f)(6)).	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Flares shall be monitored to ensure that they are operated and maintained in conformance with their design.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Compliance Requirement: Reference Method 22 shall be used to determine the compliance with flares with the visible emissions provisions.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-19** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** EU 067 Fire Pump (test only)**Associated Items:** SV 011 Fire Pump Stack (test only)

What to do	Why to do it
Operating Hours: less than or equal to 500 hours/year . EU 067 is designated for emergency use only.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
The Permittee shall keep records of the number of hours the fire pump is operated each day. By the 15th day of the month, the Permittee shall calculate the number of hours the fire pump was used during the previous 12-month period.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000. To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200.
The Permittee shall operate and maintain the stationary CI ICE according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. The Permittee may only change those settings that are permitted by the manufacturer.	40 CFR Section 60.4206; 40 CFR Section 60.4211(a); Minn. R. 7011.3520
Diesel fuel must meet the requirements of 40 CFR Section 80.510(a). All NRLM diesel fuel is subject to the following per-gallon standards: (1) Sulfur content: 500 parts per million (ppm) maximum; and (2) Cetane index or aromatic content: (i) a minimum cetane index of 40, or (ii) a maximum aromatic content of 35 volume percent.	40 CFR Section 60.4207(a); Minn. R. 7011.3520
Beginning June 1, 2010, diesel fuel must meet the requirements of 40 CFR Section 80.510(b). All NR and LM diesel fuel is subject to the following per-gallon standards: (1) Sulfur content: (i) 15 ppm maximum for NR diesel fuel and/or (ii) 500 ppm maximum for LM diesel fuel; and (2) Cetane index or aromatic content: (i) a minimum cetane index of 40, or (ii) a maximum aromatic content of 35 volume percent.	40 CFR Section 60.4207(b); Minn. R. 7011.3520
The Permittee must install a non-resettable hour meter prior to startup of the emergency engine.	40 CFR Section 60.4209(a); Minn. R. 7011.3520
The Permittee must demonstrate compliance with the emissions standards of 40 CFR Section 60.4205(c) according to one of the following methods: (1) Purchase an engine certified according to 40 CFR Part 89 or 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according the manufacturer's specifications. (2) Keep record of the performance test for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in 40 CFR pt. 60, subp. IIII, and must have been followed correctly. (3) Keep records of engine manufacturer data indicating compliance with the standards. (4) Keep records of control device vendor data indicating compliance with the standards. (5) Conduct an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR Section 60.4212.	40 CFR Section 60.4211(b); Minn. R. 7011.3520
Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Any operation other than emergency operation, and maintenance and testing as permitted in 40 CFR Section 60.4211(e), is prohibited.	40 CFR Section 60.4211(e); Minn. R. 7011.3520



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

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** EU 073 WTF Boiler**Associated Items:** SV 021 WTF Boiler

What to do	Why to do it
Notification of any physical or operational change which increases emission rate: due 60 days (or as soon as practical) before the change is commenced.	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1; Minn. R. 7011
Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least two years.	40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1
No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.	40 CFR Section 60.12; Minn. R. 7011.0050
Recordkeeping: By the last day of each calendar month, the Permittee shall record the amount of natural gas combusted in the boiler during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings.	40 CFR Section 60.48c(g); Minn. R. 7011.0570

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-21** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item:** CE 016 Flaring**Associated Items:** EU 051 Anaerobic Digester (Methanator)

EU 068 Digester Flare (AOS)

What to do	Why to do it
EMISSION LIMITS	ndr
Opacity: less than or equal to 0 percent opacity except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.	Minn. R. 7007.0800, subp. 2
Flares must be designed for and operated with no visible emissions except for a period not to exceed a total of 5 minutes during any 2 consecutive hours.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Visible Emissions: The Permittee shall check the digester flare (EU 068) for any visible emissions once each day of operation during daylight hours while the flare is operating.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J); Minn. R. 7007.0800, subps. 4 and 5
OPERATING REQUIREMENTS	hdr
Operation Requirement: Flame presence shall be monitored using a thermocouple or any other equivalent device.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Operating Requirement: Flares shall be used only with the net heating value of the gas being combusted being 200 BTU/scf or greater if the flare is nonassisted.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Operation Requirement: Flares shall be operated at all times when emissions may be vented to them.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Records Requirement: Keep a record of any startup, shutdown, or malfunction in the affected facility or a malfunction of the air pollution control equipment.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Summary report submittal frequency may be reduced according to compliance status and notification procedures defined in 40 CFR Section 60.7(e).	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Recordkeeping: Maintain a file of all measurements, CMS performance evaluations, calibration checks, adjustments and maintenance, and all other information required by this part in permanent form, suitable for inspection for at least two years following the date of such measurements, maintenance, and records.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Operation Requirement: At all times, including periods of startup, shutdown and malfunction, owners shall maintain and operate any affected facility in a manner consistent with good air pollution control practice for minimizing emissions.  Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Performance and Opacity test results should be sent to the Commissioner.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Flares used to comply with this section shall be steam assisted, air assisted, or nonassisted.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Flares shall be monitored to ensure that they are operated and maintained in conformance with their design.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Compliance Requirement: Reference Method 22 shall be used to determine the compliance with flares with the visible emissions provisions.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Air assisted flares shall be designed and operated with an exit velocity less than Vmax (as determined by the method specified in 40 CFR Section 60.18(f)(6)).	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)

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

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: FS 004 Truck Traffic**

<b>What to do</b>	<b>Why to do it</b>
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
Haul Roads-  All roads within the facility boundary shall be paved.  Speed Limit Signage: 5 MPH from the stop sign at the entrance to the Administration Building parking lot up to the Guard House located at the entrance to the production area; 10 MPH for the rest of the haul roads.  The Permittee shall prevent track-out of dirt onto the facility roadways.  The Permittee shall use only salt and not sand for wintertime ice abatement.  The Permittee shall sweep and vacuum all haul roadways daily (unless roads are wet or snow-covered).	Minn. R. 7009
Initial Silt Loading Tests of Paved Haul Roads and Subsequent Actions: This requirement is optional but, if selected, shall be conducted as follows:  The facility shall conduct onsite silt loading testing from paved roads in accordance with a performance test plan approved by the Commissioner. The initial silt loading testing shall be conducted before subsequent actions. Silt loading tests shall be conducted in accordance with EPA guidance in Appendix C.1 and Appendix C.2 of AP42. The Permittee shall keep records of silt loading testing.  If the tested silt loading values are NOT greater than those assumed in the modeling, the Permittee may, (if they wish,) propose Subsequent Actions within 60 days, (e.g., MPCA-approved remodeling to show compliance under scenarios with higher levels of truck traffic, less frequent sweeping/cleaning, etc.)	Minn. R. 7009
Initial Silt Loading Tests of Paved Haul Roads and Subsequent Actions (continued): If the tested silt loading values are found to be greater than those assumed in the modeling the Permittee shall notify the Commissioner within 30 days of the test and propose subsequent actions within 60 days of the test, (e.g., better controls or better quantification methods, such as exposure profiling, mass balances, studies, etc., to be approved by MPCA. See Appendix III for examples.)	Minn. R. 7009.0020
Daily Truck Traffic: The total numbers of trucks entering the facility each day must not exceed the maximum daily values for each truck type used in the PM10 modeling calculations in Appendix II of this permit. If any of the modeled parameters change, refer to the Total Facility section of this permit for potential re-modeling requirements.	Minn. R. 7009
Recordkeeping: The Permittee shall record the total numbers of trucks entering the facility each calendar day and maintain records at the facility. All trucks entering the facility for the purpose of grain receiving, DDGS loadout, ethanol loadout, denaturant delivery, and water treatment salt loadout shall be counted, with records maintained for each truck type.	Minn. R. 7009

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-23**

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: FS 005 Equipment Leaks**

<b>What to do</b>	<b>Why to do it</b>
The Permittee shall demonstrate compliance with the requirements of this section of the permit within 545 days after 5/15/2008.	40 CFR Section 60.482-1; Minn. R. 7011.2900
<b>STANDARDS: PUMPS</b>	hdr
<p>Pumps in light liquid service:</p> <p>(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR Section 60.485(b), except as provided in 40 CFR Section 60.482-1(c) and paragraphs (d), (e), and (f).</p> <p>(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the seal.</p> <p>(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.</p> <p>(2) If there is an indication of liquids dripping from the pump seal, a leak is detected.</p> <p>(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR Section 60.482-9 (Delay of Repair).</p> <p>(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p>	40 CFR Section 60.482-2(b) and (c); Minn. R. 7011.2900
<b>STANDARDS: COMPRESSORS</b>	hdr
<p>(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR Section 60.482-1(c) and 40 CFR Section 60.482-3(h) and (i).</p> <p>(b) Each compressor seal system shall be:</p> <p>(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or</p> <p>(2) Equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of 40 CFR Section 60.482-10; or</p> <p>(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.</p> <p>(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.</p> <p>(d) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.</p>	40 CFR Section 60.482-3(a)-(d); Minn. R. 7011.2900
<p>(e)(1) Each sensor shall be checked daily or shall be equipped with an audible alarm.</p> <p>(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.</p> <p>(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.</p> <p>(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected except as provided in 40 CFR Section 60.482-9 (Delay of Repair).</p> <p>(2) A first attempt at repair shall be made no later than 5 calendar days after it is detected, except as provided in 40 CFR Section 60.482-9.</p>	40 CFR Section 60.482-3(e); Minn. R. 7011.2900
<b>STANDARDS: PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE</b>	hdr
<p>(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background as determined by the methods specified in 40 CFR Section 60.485(c).</p> <p>(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR Section 60.482-9 (Delay of Repair).</p>	40 CFR Section 60.482-4(a) and (b); Minn. R. 7011.2900
<b>STANDARDS: SAMPLING CONNECTION SYSTEMS</b>	hdr
<p>(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in 40 CFR Section 60.482-1(c).</p> <p>(b) Each closed-purge, closed-loop or closed-vent system shall:</p> <p>(1) Return the purged process fluid directly to the process line; or</p> <p>(2) Collect and recycle the purged process fluid to a process; or</p> <p>(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR Section 60.482-1(c).</p> <p>(c) In situ sampling systems are exempt from these requirements.</p>	40 CFR Section 60.482-5(a)-(c); Minn. R. 7011.2900
<b>STANDARDS: OPEN ENDED VALVES OR LINES</b>	hdr

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

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

<p>(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR Section 60.482-1(c).</p> <p>(2) The cap, blind flange, plug or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open ended valve or line.</p> <p>(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.</p> <p>(c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.</p>	40 CFR Section 60.482-6(a)-(c); Minn. R. 7011.2900
STANDARDS: VALVES	hdr
<p>(a) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR Section 60.485(b).</p> <p>(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.</p> <p>(c)(1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.</p> <p>(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.</p> <p>(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR Section 60.482-9.</p> <p>(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p>	40 CFR Section 60.482-7(a)-(d); Minn. R. 7011.2900
<p>(e) First attempts at repair include, but are not limited to, the following best practices where practicable:</p> <p>(1) Tightening of bonnet bolts;</p> <p>(2) Replacement of bonnet bolts;</p> <p>(3) Tightening of packing gland nuts;</p> <p>(4) Injection of lubricant into lubricated packing.</p>	40 CFR Section 60.482-7(e); Minn. R. 7011.2900
STANDARDS: PUMPS AND VALVES IN HEAVY LIQUID SERVICE, PRESSURE RELIEF DEVICES IN LIGHT LIQUID OR HEAVY LIQUID SERVICE, AND FLANGES AND OTHER CONNECTORS	hdr
<p>(a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service and flanges and other connectors shall be monitored within 5 days by the method specified in 40 CFR Section 60.485(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.</p> <p>(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.</p> <p>(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in 40 CFR Section 60.482-9 (Delay of Repair).</p> <p>(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p> <p>(d) First attempt at repair include, but are not limited to, the best practices described under 40 CFR Section 60.482-7(e).</p>	40 CFR Section 60.482-8(a); Minn. R. 7011.2900
DELAY OF REPAIR	hdr
<p>(a) Delay of repair of equipment for which leaks that have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.</p> <p>(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.</p> <p>(c) Delay of repair for valves will be allowed if:</p> <p>(1) The owner or operator demonstrates that emissions of purged material resulting from the immediate repair are greater than the fugitive emissions likely to result from delayed repair, and</p> <p>(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR Section 60.482-10.</p>	40 CFR Section 60.482-9(a) - (b); Minn. R. 7011.2900

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-25**

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

(d) Delay of repair for pumps will be allowed if: (1) Repair required the use of dual mechanical seal system that includes a barrier fluid system, and (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. (e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs less than 6 months after the first process unit shutdown.	40 CFR Section 60.482-9(d) and (e); Minn. R. 7011.2900
TESTING PROCEDURES	hdr
Compliance shall be determined by the methods specified in 40 CFR Section 60.485.	40 CFR Section 60.486(b); Minn. R. 7011.2900
RECORDKEEPING	hdr
(b) When each leak is detected, the following requirements apply: (1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. (2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR Section 60.482-7(c) and no leak has been detected during those 2 months. (3) The identification on equipment except on a valve may be removed after it has been repaired.	40 CFR Section 60.486(b); Minn. R. 7011.2900
(c) When each leak is detected the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: (1) The instrument and operator identification numbers and the equipment identification number. (2) The date the leak was detected and the dates of each attempt to repair the leak. (3) Repair methods applied in each attempt to repair the leak. (4) Above 10,000 is the maximum instrument reading measured by the methods specified in 40 CFR Section 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm. (5) Repair delayed and the reason for the delay, if a leak is not repaired within 15 calendar days after discovery of the leak. (6) The signature of the owner or operator whose decision it was that the repair could not be effected without a process shutdown. (7) The expected date of successful repair of the leak, if a leak is not repaired within 15 days.	40 CFR Section 60.486(c); Minn. R. 7011.2900
continued: (8) Dates of process unit shutdown that occur while the equipment is unrepaired. (9) The date of successful repair of the leak.	40 CFR Section 60.486(c); Minn. R. 7011.2900
REPORTING REQUIREMENTS	hdr
(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date. (b) The initial semiannual report to the Administrator shall include the following information: (1) Process unit identification, (2) Number of valves subject to the requirements of 40 CFR Section 60.482-7 (3) Number of pumps subject to the requirements of 40 CFR Section 60.482-2 (4) Number of compressors subject to the requirements of 40 CFR Section 60.482-3.	40 CFR Section 60.487(a); Minn. R. 7011.2900
(c) All semiannual reports to the administrator shall include the following information summarized from the information in 40 CFR Section 60.486; (1) Process unit identification (2) For each month during the semiannual reporting period, (i) Number of valves for which leaks were detected as described in 40 CFR Section 60.482(7)(b) or 40 CFR Section 60.483-2 (ii) Number of valves for which leaks were not repaired as required in 40 CFR Section 60.482-7(d)(1) (iii) Number of pumps for which leaks were detected as described in 40 CFR Section 60.482-2(b) and (d)(6)(i) (iv) Number of pumps for which leaks were not repaired as required in 40 CFR Section 60.482-2(c)(1) and (d)(6)(ii).	40 CFR Section 60.487(c); Minn. R. 7011.2900

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

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

(v) Number of compressors for which leaks were detected as described in 40 CFR Section 60.482-3(f) (vi) Number of compressors for which leaks were not repaired as required in 40 CFR Section 60.482-3(g)(1) (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. (3) Dates of process unit shutdowns which occurred within the semiannual reporting period. (4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.	40 CFR Section 60.487(c); Minn. R. 7011.2900
(e) Report the results of all performance tests in accordance with 40 CFR Section 60.8. The provisions of 40 CFR Section 60.8(d) do not apply to the affected facilities subject to the provisions of this subpart, except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.	40 CFR Section 60.487(e); Minn. R. 7011.2900

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant  
Permit Number: 09100062 - 003

Subject Item: FS 006 Wetcake (AOS)

What to do	Why to do it
Wet Cake Storage Limitation: When wet cake by-product is produced, it shall be stored for no longer than 72 hours on-site. This limit does not apply to Modified Distillers Grains with Solubles (MDGS).	Minn. R. 7007.0800, subp. 2
Recordkeeping: The Permittee shall maintain records of the number of hours wet cake by-product is stored at the facility. For each batch of wet cake by-product produced, the total on-site storage hours for that batch shall be recorded and maintained at the facility.	Minn. R. 7007.0800, subp. 5



**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-28**

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: MR 001 NOx CEMS for TO/HRSG's****Associated Items: SV 005 TO/HRSG Stack**

What to do	Why to do it
CEMS Installation and Operation: Install NOx CEMS prior to conducting performance tests for SV 005 and measure NOx emissions from SV 005.	40 CFR Section 60.13(b); Minn. R. 7017.1006
Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.	Minn. R. 7017.1040, subp. 1
CEM Certification Test: due 90 days after Initial Startup of the Monitor. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B.	Minn. R. 7017.1050, subp. 1
CEMS Certification Test Plan: due 30 days before CEMS Certification Test	Minn. R. 7017.1060, subp.1 & 2
CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 3
CEMS Certification Test Report: due 45 days after CEMS Certification Test	Minn. R. 7017.1080, subp. 1, 2, & 4
CEMS Certification Test Report - Microfiche or CD Copy: due 105 days after CEMS Certification Test	Minn. R. 7017.1080, subp. 3
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit (CGA): due before end of each calendar half-year following CEMS Certification Test. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following Cylinder Gas Audit (CGA)	Minn. R. 7017.1180, subp. 1
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.  Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	Minn. R. 7017.1090, subp. 1
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.1130
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2
Monitoring Data: Reduce all NOx continuous monitoring systems data to 1-hour averages in accordance with 40 CFR Section 60.13(h). 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	40 CFR Section 60.13(h) regarding continuous monitoring systems other than COMS
The continuous monitoring systems for nitrogen oxides shall be operated and data recorded during all periods of operation except for continuous monitoring system breakdowns and repairs. Data shall be recorded during calibration checks, and during zero and span adjustments. The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor shall be expressed as lb/MMBtu heat input and shall be used to calculate the average emission rates. The 1-hour averages shall be calculated using at least 2 data points for each 1-hour average. The Procedures under 40 CFR Section 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The span value for measuring nitrogen oxides shall be 1000 ppm.	40 CFR 60 Section 48b(c), (d) and (e)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant  
Permit Number: 09100062 - 003

When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero span adjustments, emission data will be obtained by using standby monitoring systems, or other approved reference methods to provide emission data for a minimum of 70 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 steam generating unit operating days.	40 CFR 60 Section 48b(f)
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**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-30**

02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

**Subject Item: MR 002 CO CEMS for TO/HRSG's****Associated Items: SV 005 TO/HRSG Stack**

What to do	Why to do it
Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.	Minn. R. 7017.1040, subp. 1
CEM Certification Test: due 90 days after Initial Startup of the Monitor. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B.	Minn. R. 7017.1050, subp. 1
CEMS Certification Test Plan: due 30 days before CEMS Certification Test	Minn. R. 7017.1060, subp.1 & 2
CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 3
CEMS Certification Test Report: due 45 days after CEMS Certification Test	Minn. R. 7017.1080, subp. 1, 2, & 4
CEMS Certification Test Report Microfiche or CD Copy: due 105 days after CEMS Certification Test	Minn. R. 7017.1080, subp. 3
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit (CGA): due before end of each calendar half-year following CEMS Certification Test. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following Cylinder Gas Audit (CGA)	Minn. R. 7017.1180, subp. 1
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.  Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	Minn. R. 7017.1090, subp. 1
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.1130
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2

**TABLE B: SUBMITTALS****B-1** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant  
Permit Number: 09100062 - 003

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

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

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

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

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

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

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

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

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

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

**TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS****B-2** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

What to send	When to send	Portion of Facility Affected
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU073
Notification of the Date Construction Began	due 30 days after Start Of Construction	EU073
Testing Frequency Plan	due 60 days after Initial Performance Test for HAP emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV004, SV005
Testing Frequency Plan	due 60 days after Initial Performance Test for PM emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV001, SV002, SV003, SV005
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV001, SV002, SV003, SV005
Testing Frequency Plan	due 60 days after Initial Performance Test for VOC emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	SV004, SV005

**TABLE B: RECURRENT SUBMITTALS****B-3** 02/09/10

Facility Name: Valero Renewable Fuels Co LLC - Welcome Plant

Permit Number: 09100062 - 003

What to send	When to send	Portion of Facility Affected
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following CEM Certification Test (Submit Deviations Reporting Form DRF-1 as amended). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	MR001, MR002
Report	due 30 days after end of each calendar quarter following Permit Issuance The report content and format is defined in 40 CFR Section 60.7(d).	CE016, SV006
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 09/19/2007 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 09/19/2007 (for the previous calendar year). To be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name: Valero Renewable Fuels Company, LLC d/b/a Valero Welcome Plant

Permit Number: 09100062-003

**Appendix I: Insignificant Activities**

**Insignificant Activities and Applicable Requirements**

<b>Minn. R. 7007.1300, subpart</b>	<b>Rule Description of the Activity</b>	<b>Applicable Requirement</b>
3(A)	Fuel use: space heaters fueled by propane may be used in the winter to defrost equipment. <i>Less than 30,000 BTU/hr capacity.</i>	Minn. R. 7011.0510/0515
3(E)	Storage tanks:	
	1. gasoline storage tanks with a combined total tankage capacity of not more than 10,000 gallons; <i>The facility may have gasoline storage tanks for lawn mowers and other small equipment in portable 1-10 gallon fuel cans.</i>	Minn. R. 7011.0710/0715
3(G)	Emissions from a laboratory, as defined in the subpart. <i>The facility will have a product testing laboratory.</i>	Minn. R. 7011.0510/0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
3(H)	Miscellaneous:	
	3. brazing, soldering or welding equipment; <i>The facility may perform welding activities associated with facility maintenance.</i>	Minn. R. 7011.0510/.0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
	4. blueprint copiers and photographic processes; <i>Normal scale office equipment will be present at the facility office.</i>	Minn. R. 7011.0105/0110
3(I)	Individual emission units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than:  4,000 pounds per year of carbon monoxide; and  2,000 pounds per year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, VOCs (including hazardous air pollutant-	Minn. R. 7011.0715 + Minn. R. 7011.1505/1510

<b>Minn. R. 7007.1300, subpart</b>	<b>Rule Description of the Activity</b>	<b>Applicable Requirement</b>
	<p>containing VOCs), and ozone.</p> <p><i>The water treatment components, other than the natural gas fired boiler, qualify as insignificant activities. The natural gas fired water bath heater also qualifies as an insignificant activity.</i></p>	
3(J)	<p>Fugitive Emissions from roads and parking lots.</p> <p><i>All main facility haul roads will be paved. There may exist pull-offs, parking spaces, or unpaved areas where a vehicle could drive, but does not do so on a regular basis.</i></p>	Minn. R. 7011.0150
3(K)	<p>Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment.</p> <p><i>Small scale spray painting may occur, but only associated with construction or maintenance activities.</i></p>	Minn. R. 7011.0710/0715



## Appendix II: Modeling Parameters Used for Valero Renewable Fuels Company, LLC in Welcome, Martin County, Minnesota

The following table contains the parameters used for PM10 modeling activities associated with Air Emission Permit No. 09100062-003:

ID	Type	X	Y	Z	Release Rate (g/s)	Release Height (m)	Temp (K)	Exit Velocity (m/s)	Stack Diameter (m)
VSSV001	POINT	371982.5	4835913	372	0.216	48.768	0	14.70504	1.219
VSSV002	POINT	371961.4	4835914	372	0.044	48.768	0	14.61478	0.66
VSSV003	POINT	371985	4835858	372.78	0.104	48.768	0	16.20309	1.016
VSSV005	POINT	371857.9	4835783	374	1.174	38.1	394.26	14.23	3.072
VSSV006	POINT	372136.7	4835916	372	0.001	10.668	699.817	8.797	1.524
VSSV007	POINT	372151.3	4835699	374	0.0225	13.411	293.15	5	6.096
VSSV008	POINT	372164.7	4835699	374	0.0225	13.411	293.15	5	6.1
VSSV009	POINT	372176.8	4835698	374	0.0225	13.411	293.15	5	6.1
VSSV010	POINT	372189.7	4835698	374	0.0225	13.411	293.15	5	6.1
VSSV011	POINT	372085	4835624	375.34	0.00475	3.048	699.82	25.908	0.102
VSSV019	POINT	371892.2	4835773	374	0.052	14.63	0	6.064	1.219
VSSV004	POINT	372018	4835751	373.34	0	22.86	291.483	14.054	0.686
VSSV021	POINT	372016.8	4835590	377.43	0.016	11.278	444.261	16.15074	0.61
VSSV012	POINT	371948.4	4835708	374	0	5.486	1255.372	1.03291	0.427
VSSV022A	POINT	372049.8	4835618	375.77	0.0069	1.524	0	17.54241	0.152
VSSV022B	POINT	372049.1	4835601	376.59	0.0069	1.524	0	17.54241	0.152
ID	Type	X	Y	Z	Release Rate (g/s)	Release Height (m)			
VSRA001	VOLUME	372320.9	4835325	378	0.000997	2.4			
VSRB061	VOLUME	371887.6	4835532	378	0.000611	2.58			
VSRD080	VOLUME	371790.3	4835676	375.43	0.00107	2.64			
VSRE096	VOLUME	371798.4	4835836	373.65	0.00108	2.58			
VSRF119	VOLUME	371951.2	4835923	372	0.00136	2.58			
VSRG137	VOLUME	372106.6	4835884	372	0.000792	2.58			
VSRH143	VOLUME	372093.1	4835832	372	0.000787	2.58			
VSRI172	VOLUME	372106.8	4835824	372	1.30E-05	1.98			
VSRJ197	VOLUME	372012.2	4835660	375	1.79E-05	1.98			
VSRC220	VOLUME	371893.9	4835542	378	5.73E-06	1.42			
VSFS001	VOLUME	371974.3	4835930	372	0.0118	6.248			

## Modeling Comments and Assumptions for Air Emission Permit No. 09100062-003:

- Modeling was resubmitted due to significant changes to the original modeled facility.
- The parameters for each volume segment are the same except for the location of the source.
- PM10 was of primary concern for the remodel.
- PM10 was found to be well below the standard after adding in background:
- Background data obtained from FAR sources for the August 2006 revised application.
- A speed limit of 5 miles per hour (mph) was implemented from the stop sign at the entrance to the Administration Building parking lot up to the Guard House located at the entrance to the production area. A speed limit of 10 mph will be implemented for the rest of Valero's haul roads.
- All haul roads shall be swept/cleaned daily.
- All roads within the facility should be paved.
- Install fencing (property line) before plant start-up.
- Modeling assumed 90% of corn volume received by hopper trucks and 10% of corn volume received by straight trucks.

## The following information summarizes the parameters used for air dispersion modeling activities associated with Air Emission Permit No. 09100062-001:

### Hardcopy Report Submittal

Synthetic Minor Source Air Pollution Control Permit to Construct Application, VeraSun Welcome, LLC, January 2006 (revised March 2006; resubmittal with final edits August 2006).

### Electronic (CD-ROM) Submittal

VeraSun Welcome Electronic Submittal (containing PM10 minor source increment and MN AERA modeling files), prepared by Natural Resource Group, Inc., August 14, 2006.

### Appendix II – Full Details

See CD-ROM for full data details.

### Appendix II – Summary Report (A Computer-Generated “REPORT” Format with Simple Headers, Simple Sources, and Selected Parameters)

The summary report is for simple (constant) emission rates and corresponding stack/source parameters. It does not fully document details regarding model control options, emission rates with varying emission scalars, corresponding stack/source parameters, wind speed categories for wind erosion, building profile input program (BPIP) outputs, various output selections (e.g., EVENTFIL, MULTYEAR, PLOTFILE, POSTFILE, MAXIFILE), applicable “INCLUDED” file information, receptor grids, or other special features described in the following EPA modeling user guides:

ISCST3: <http://www.epa.gov/scram001/userg/regmod/isc3v1.pdf>

AERMOD: <http://www.epa.gov/scram001/7thconf/aermod/aermodugb.pdf>

Note: If any difference exists between summary values in this appendix vs. the hardcopy report vs. the electronic CD-ROM modeled values, the electronic CD-ROM modeled values prevail.

For Your Information

Emission rates in the first four tables are in the units indicated. The first four tables are for PM10, CO, NOX, and SO2, respectively.

Emission rates in the next four tables are not in units indicated but rather equivalent risk emission rate (ERER) units (a.k.a. Q/CHI sums).

Truck traffic PM10 modeling information is attached at the end of this appendix.

\*\*\* AERMOD - VERSION 04300 \*\*\*

\*\*\* VeraSun Welcome LLC  
 \*\*\* PM10 Increment and MN AERA Modeling

\*\*\* 08/15/06  
 \*\*\* 11:49:34

U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\VSWRevisionAug142006FINAL\_86\_PTEPM10.LST

\*\*This Run Includes: 246 Source(s); 17 Source Group(s); and 1055 Receptor(s)

AREA	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOURL	T/YEAR	HGT(M)	HGT(FT)	XDIM(M)	YDIM(M)								
VOLUME	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOURL	T/YEAR	HGT(M)	HGT(FT)	SYI(M)	SZI(M)								
AREACIRC	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOURL	T/YEAR	HGT(M)	HGT(FT)	RADIUS	#VERTS.								
AREAPOLY	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOURL	T/YEAR	HGT(M)	HGT(FT)	#VERTS.	SZI(M)								
POINT	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOURL	T/YEAR	HGT(M)	HGT(FT)	DIA(M)	DIA(FT)	DEG(K)	DEG(C)	DEG(F)	VS(M/S)	VS(F/M)	ACFM		
POINT	VSSV001	371943	4835907	372	0.22	1.71	7.51	45.72	150.00	1.220	4.003	0.	-273.	-460.	19.40	3818.90	48053		
POINT	VSSV002	371933	4835911	372	0.04	0.34	1.50	45.72	150.00	0.660	2.165	0.	-273.	-460.	12.54	2468.50	9090		
POINT	VSSV003	371941	4835854	372	0.10	0.82	3.60	45.72	150.00	1.020	3.346	0.	-273.	-460.	16.30	3208.66	28222		
POINT	VSSV005	372083	4835740	372	1.17	9.31	40.77	38.10	125.00	3.050	10.007	394.	121.	250.	14.23	2801.18	220293		
POINT	VSSV006	372348	4835803	372	0.00	0.00	0.02	9.14	29.99	1.520	4.987	700.	427.	800.	8.80	1732.28	33835		
POINT	VSSV007	372143	4835712	372	0.02	0.18	0.77	10.36	33.99	6.100	20.013	0.	-273.	-460.	5.00	984.25	309618		
POINT	VSSV008	372156	4835712	372	0.02	0.18	0.77	10.36	33.99	6.100	20.013	0.	-273.	-460.	5.00	984.25	309618		
POINT	VSSV009	372170	4835711	372	0.02	0.18	0.77	10.36	33.99	6.100	20.013	0.	-273.	-460.	5.00	984.25	309618		
POINT	VSSV010	372183	4835711	372	0.02	0.18	0.77	10.36	33.99	6.100	20.013	0.	-273.	-460.	5.00	984.25	309618		
POINT	VSSV011	372110	4835691	372	0.00	0.04	0.16	4.57	14.99	0.300	0.984	700.	427.	800.	25.91	5100.39	3881		
POINT	VSSV019	372035	4835785	372	0.14	1.14	5.00	14.63	48.00	1.220	4.003	0.	-273.	-460.	6.06	1192.91	15010		
VOLUME	VSRA001	372316	4835347	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA002	372316	4835357	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA003	372317	4835367	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA004	372317	4835377	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA005	372318	4835387	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA006	372319	4835397	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA007	372319	4835407	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA008	372320	4835417	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA009	372320	4835427	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA010	372321	4835437	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA011	372321	4835447	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA012	372322	4835457	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA013	372323	4835467	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA014	372323	4835477	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA015	372324	4835487	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA016	372324	4835497	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA017	372319	4835505	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA018	372313	4835514	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA019	372308	4835522	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA020	372300	4835529	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA021	372293	4835536	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA022	372284	4835537	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRA023	372274	4835538	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB024	372264	4835539	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB025	372254	4835540	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB026	372244	4835541	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB027	372234	4835542	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB028	372224	4835542	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB029	372214	4835543	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB030	372204	4835543	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB031	372194	4835544	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB032	372184	4835544	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB033	372174	4835545	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB034	372164	4835545	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB035	372154	4835546	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB036	372144	4835546	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB037	372134	4835547	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB038	372124	4835547	378	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							
VOLUME	VSRB039	372114	4835548	377	0.00	0.01	0.04	2.33	7.64	4.650	2.150	*HROFDY*							

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VOLUME	VS RK223	371684	4835686	380	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK224	371694	4835686	379	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK225	371704	4835686	379	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK226	371714	4835686	379	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK227	371724	4835686	378	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK228	371727	4835694	378	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK229	371728	4835704	378	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK230	371729	4835714	378	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK231	371731	4835724	378	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
VOLUME	VS RK232	371731	4835731	378	0.00	0.00	0.00	2.33	7.64	4.650	2.150	*HROFDY*
AREA	VS FS001	371923	4835922	372	0.03	0.22	0.96	1.52	4.99	40.00	26.00	(0.2655E-04 G/S/M2, 0.1040E+04 M2)
AREA	VS FS002	371961	4835945	372	0.00	0.01	0.03	1.52	4.99	40.00	26.00	(0.8575E-06 G/S/M2, 0.1040E+04 M2)
AREA	VS FS003	371967	4835840	372	0.01	0.05	0.23	1.52	4.99	32.00	32.00	(0.6461E-05 G/S/M2, 0.1024E+04 M2)
TOTAL					2.01	15.96	69.88					
SUMP=					1.77	14.07	61.64					
SUMV=					0.20	1.60	7.02					
SUMA=					0.04	0.28	1.22					

\*\*\* AERMOD - VERSION 04300 \*\*\*      \*\*\* VeraSun Welcome LLC      \*\*\*      08/15/06  
 \*\*\* PM10 Increment and MN AERA Modeling      \*\*\*      19:07:11

U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\MAINRUNS\ALLOTHER\_1986\VSWRevisionAug142006FINAL\_86\_CO.LST

\*\*This Run Includes:      2 Source(s);      4 Source Group(s); and      1055 Receptor(s)

AREA	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	XDIM(M)	YDIM(M)						
VOLUME	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	SYI(M)	SZI(M)						
AREACIRC	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	RADIUS	#VERTS.						
AREAPOLY	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	#VERTS.	SZI(M)						
POINT	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	DIA(M)	DIA(FT)	DEG(K)	DEG(C)	DEG(F)	VS(M/S)	VS(F/M)	ACFM
POINT	VSSV005	372083	4835740	372	2.66	21.10	92.41	38.10	125.00	3.050	10.007	394.	121.	250.	14.23	2801.18	220293
POINT	VSSV006	372348	4835803	372	0.07	0.56	2.44	9.14	29.99	1.520	4.987	700.	427.	800.	8.80	1732.28	33835
TOTAL					2.73	21.66	94.85										

\*\*\* AERMOD - VERSION 04300 \*\*\*      \*\*\* VeraSun Welcome LLC      \*\*\*      08/15/06  
 \*\*\* PM10 Increment and MN AERA Modeling      \*\*\*      19:03:14

U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\MAINRUNS\ALLOTHER\_1986\VSWRevisionAug142006FINAL\_86\_NOX.LST

\*\*This Run Includes:      2 Source(s);      4 Source Group(s); and      1055 Receptor(s)

AREA	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	XDIM(M)	YDIM(M)						
VOLUME	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	SYI(M)	SZI(M)						
AREACIRC	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	RADIUS	#VERTS.						
AREAPOLY	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	#VERTS.	SZI(M)						
POINT	SRCIDNT	EASTING	NORTHING	ELEV(M)	G/SEC	#/HOUR	T/YEAR	HGT(M)	HGT(FT)	DIA(M)	DIA(FT)	DEG(K)	DEG(C)	DEG(F)	VS(M/S)	VS(F/M)	ACFM
POINT	VSSV005	372083	4835740	372	2.68	21.23	92.99	38.10	125.00	3.050	10.007	394.	121.	250.	14.23	2801.18	220293
POINT	VSSV006	372348	4835803	372	0.03	0.24	1.04	9.14	29.99	1.520	4.987	700.	427.	800.	8.80	1732.28	33835
TOTAL					2.71	21.47	94.03										



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*** AERMOD - VERSION 04300 ***      *** VeraSun Welcome LLC      ***      08/15/06
*** PM10 Increment and MN AERA Modeling ***      19:00:46
U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\MAINRUNS\ALLOTHER_1986\VSWRevisionAug142006FINAL_86_SO2.LST
**This Run Includes:      1 Source(s);      3 Source Group(s); and      1055 Receptor(s)
  AREA SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) XDIM(M) YDIM(M)
  VOLUME SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) SYI(M) SZI(M)
  AREACIRC SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) RADIUS #VERTS.
  AREAPOLY SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) #VERTS. SZI(M)
  POINT SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) DIA(M) DIA(FT) DEG(K) DEG(C) DEG(F) VS(M/S) VS(F/M) ACFM
-----
POINT VSSV005 372083 4835740 372 2.32 18.43 80.71 38.10 125.00 3.050 10.007 394. 121. 250. 14.23 2801.18 220293
TOTAL 2.32 18.43 80.71

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*** AERMOD - VERSION 04300 ***      *** VeraSun Welcome LLC      ***      08/15/06
*** PM10 Increment and MN AERA Modeling ***      19:11:07
U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\MAINRUNS\ALLOTHER_1986\VSWRevisionAug142006FINAL_86_PTEACUTE.LST
**This Run Includes:      14 Source(s);      17 Source Group(s); and      1055 Receptor(s)
  AREA SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) XDIM(M) YDIM(M)
  VOLUME SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) SYI(M) SZI(M)
  AREACIRC SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) RADIUS #VERTS.
  AREAPOLY SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) #VERTS. SZI(M)
  POINT SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) DIA(M) DIA(FT) DEG(K) DEG(C) DEG(F) VS(M/S) VS(F/M) ACFM
-----
POINT VSSV004 371887 4835759 372 0.00 0.01 0.04 22.86 75.00 0.690 2.264 0. -273. -460. 14.05 2765.75 11132
POINT VSSV005 372083 4835740 372 0.01 0.10 0.43 38.10 125.00 3.050 10.007 394. 121. 250. 14.23 2801.18 220293
POINT VSSV006 372348 4835803 372 0.00 0.00 0.00 9.14 29.99 1.520 4.987 700. 427. 800. 8.80 1732.28 33835
POINT VSSV013 372169 4835853 372 0.00 0.00 0.00 11.58 37.99 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV014 372189 4835852 372 0.00 0.00 0.00 11.58 37.99 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV015 372211 4835852 372 0.00 0.00 0.00 11.58 37.99 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV016 372209 4835880 372 0.00 0.00 0.00 15.24 50.00 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV017 372172 4835883 372 0.00 0.00 0.00 15.24 50.00 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV019 372035 4835785 372 0.00 0.02 0.08 14.63 48.00 1.220 4.003 0. -273. -460. 6.06 1192.91 15010
  AREA VSFS005 372217 4835914 372 0.00 0.00 0.00 1.52 4.99 405.00 80.00 (0.3492E-10 G/S/M2, 0.3240E+05 M2)
  AREA VSFS006 372048 4835799 372 0.00 0.00 0.01 1.52 4.99 36.58 27.43 (0.2424E-06 G/S/M2, 0.1003E+04 M2)
TOTAL 0.02 0.13 0.57
SUMP= 0.02 0.13 0.56
SUMA= 0.00 0.00 0.01

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*** AERMOD - VERSION 04300 ***      *** VeraSun Welcome LLC      ***      08/15/06
*** PM10 Increment and MN AERA Modeling ***      21:11:04
U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\MAINRUNS\ALLOTHER_1986\VSWRevisionAug142006FINAL_86_PTECANC.LST
**This Run Includes:      9 Source(s);      12 Source Group(s); and      1055 Receptor(s)
  AREA SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) XDIM(M) YDIM(M)
  VOLUME SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) SYI(M) SZI(M)
AREACIRC SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) RADIUS #VERTS.
AREAPOLY SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) #VERTS. SZI(M)
  POINT SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) DIA(M) DIA(FT) DEG(K) DEG(C) DEG(F) VS(M/S) VS(F/M) ACFM
-----
POINT VSSV004 371887 4835759 372 0.06 0.51 2.23 22.86 75.00 0.690 2.264 0. -273. -460. 14.05 2765.75 11132
POINT VSSV005 372083 4835740 372 0.10 0.82 3.61 38.10 125.00 3.050 10.007 394. 121. 250. 14.23 2801.18 220293
POINT VSSV006 372348 4835803 372 0.00 0.01 0.02 9.14 29.99 1.520 4.987 700. 427. 800. 8.80 1732.28 33835
POINT VSSV015 372211 4835852 372 0.00 0.00 0.01 11.58 37.99 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV016 372209 4835880 372 0.00 0.00 0.00 15.24 50.00 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV017 372172 4835883 372 0.00 0.00 0.00 15.24 50.00 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV019 372035 4835785 372 0.01 0.11 0.49 14.63 48.00 1.220 4.003 0. -273. -460. 6.06 1192.91 15010
  AREA VSFS006 372048 4835799 372 0.01 0.06 0.27 1.52 4.99 36.58 27.43 (0.7685E-05 G/S/M2, 0.1003E+04 M2)
TOTAL 0.19 1.52 6.64
SUMP= 0.18 1.45 6.37
SUMA= 0.01 0.06 0.27

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*** AERMOD - VERSION 04300 ***      *** VeraSun Welcome LLC      ***      08/15/06
*** PM10 Increment and MN AERA Modeling ***      20:15:32
U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\MAINRUNS\ALLOTHER_1986\VSWRevisionAug142006FINAL_86_PTECHRON.LST
**This Run Includes:      26 Source(s);      18 Source Group(s); and      1055 Receptor(s)
  AREA SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) XDIM(M) YDIM(M)
  VOLUME SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) SYI(M) SZI(M)
AREACIRC SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) RADIUS #VERTS.
AREAPOLY SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) #VERTS. SZI(M)
  POINT SRCIDNT EASTINGNORTHING ELEV(M) G/SEC #/HOUR T/YEAR HGT(M) HGT(FT) DIA(M) DIA(FT) DEG(K) DEG(C) DEG(F) VS(M/S) VS(F/M) ACFM
-----
POINT VSSV004 371887 4835759 372 0.12 0.96 4.19 22.86 75.00 0.690 2.264 0. -273. -460. 14.05 2765.75 11132
POINT VSSV005 372083 4835740 372 0.51 4.06 17.78 38.10 125.00 3.050 10.007 394. 121. 250. 14.23 2801.18 220293
POINT VSSV006 372348 4835803 372 0.00 0.00 0.00 9.14 29.99 1.520 4.987 700. 427. 800. 8.80 1732.28 33835
POINT VSSV013 372169 4835853 372 0.00 0.00 0.00 11.58 37.99 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV014 372189 4835852 372 0.00 0.00 0.00 11.58 37.99 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV015 372211 4835852 372 0.00 0.00 0.00 11.58 37.99 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV016 372209 4835880 372 0.00 0.00 0.00 15.24 50.00 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV017 372172 4835883 372 0.00 0.00 0.00 15.24 50.00 0.300 0.984 0. -273. -460. 0.01 1.97 1
POINT VSSV019 372035 4835785 372 0.18 1.40 6.13 14.63 48.00 1.220 4.003 0. -273. -460. 6.06 1192.91 15010
POINT VSIDL1 371882 4835563 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL2 371884 4835557 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL3 371974 4835557 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL4 371975 4835551 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL5 372043 4835552 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL6 372047 4835547 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL7 372109 4835550 377 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL8 371927 4835556 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL9 372110 4835544 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL10 371927 4835560 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL11 372174 4835548 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
POINT VSIDL12 372176 4835543 378 0.00 0.01 0.03 3.65 11.98 0.100 0.328 533. 260. 500. 5.00 984.25 83
  AREA VSFS005 372217 4835914 372 0.00 0.00 0.00 1.52 4.99 405.00 80.00 (0.4200E-09 G/S/M2, 0.3240E+05 M2)
  AREA VSFS006 372048 4835799 372 0.01 0.08 0.37 1.52 4.99 36.58 27.43 (0.1050E-04 G/S/M2, 0.1003E+04 M2)
TOTAL 0.83 6.57 28.78
SUMP= 0.82 6.49 28.42
SUMA= 0.01 0.08 0.37

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*** AERMOD - VERSION 04300 ***      *** VeraSun Welcome LLC      ***      08/15/06
*** PM10 Increment and MN AERA Modeling ***      19:52:23
U:\PROJECTS\DBECKER\PROJECTS\VSWAUG06\MAINRUNS\ALLOTHER_1986\VSWRevisionAug142006FINAL_86_PTesubCH.LST
**This Run Includes:      10 Source(s);      13 Source Group(s); and      1055 Receptor(s)
  AREA SRCIDNT EASTINGNORTHING ELEV(M)  G/SEC  #/HOUR  T/YEAR  HGT(M) HGT(FT)  XDIM(M) YDIM(M)
  VOLUME SRCIDNT EASTINGNORTHING ELEV(M)  G/SEC  #/HOUR  T/YEAR  HGT(M) HGT(FT)  SYI(M)  SZI(M)
  AREACIRC SRCIDNT EASTINGNORTHING ELEV(M)  G/SEC  #/HOUR  T/YEAR  HGT(M) HGT(FT)  RADIUS  #VERTS.
  AREAPOLY SRCIDNT EASTINGNORTHING ELEV(M)  G/SEC  #/HOUR  T/YEAR  HGT(M) HGT(FT)  #VERTS.  SZI(M)
  POINT SRCIDNT EASTINGNORTHING ELEV(M)  G/SEC  #/HOUR  T/YEAR  HGT(M) HGT(FT)  DIA(M)  DIA(FT)  DEG(K)  DEG(C)  DEG(F)  VS(M/S)  VS(F/M)  ACFM
-----
POINT VSSV004      371887 4835759      372    0.01    0.07    0.30    22.86    75.00    0.690    2.264
POINT VSSV005      372083 4835740      372    0.05    0.36    1.60    38.10   125.00    3.050   10.007   394.    121.    250.    14.23  2801.18  220293
POINT VSSV006      372348 4835803      372    0.00    0.00    0.00     9.14    29.99    1.520    4.987   700.    427.    800.     8.80  1732.28  33835
POINT VSSV015      372211 4835852      372    0.00    0.00    0.00    11.58    37.99    0.300    0.984     0.   -273.   -460.     0.01    1.97     1
POINT VSSV016      372209 4835880      372    0.00    0.00    0.00    15.24    50.00    0.300    0.984     0.   -273.   -460.     0.01    1.97     1
POINT VSSV017      372172 4835883      372    0.00    0.00    0.00    15.24    50.00    0.300    0.984     0.   -273.   -460.     0.01    1.97     1
POINT VSSV019      372035 4835785      372    0.02    0.13    0.56    14.63    48.00    1.220    4.003     0.   -273.   -460.     6.06  1192.91  15010
  AREA VSFS006      372048 4835799      372    0.00    0.01    0.03     1.52     4.99    36.58    27.43 (0.7196E-06 G/S/M2, 0.1003E+04 M2)
TOTAL
SUMP=
SUMA=

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VeraSun Welcome, LLC

Truck Traffic PM10 Modeling Calcs

Traffic  
Calculated by  
Activity

Road Segments Traveled

Activity	Annual Amount	Amount per Truck	Number of Trucks	A	B	C	D	E	F	G	H	I	J	K
Grain Receiving (tons)	1,232,836	25	49,313	98,627	98,627	98,627	98,627	49,313	49,313	49,313	49,313	0	0	0
DDGS Loadout (tons)	385,261	25	15,410	30,821	30,821	30,821	30,821	15,410	15,410	15,410	15,410	0	0	0
EtOH Loadout (gallons)	124,210,526	8,000	15,526	31,053	31,053	31,053	31,053	15,526	15,526	15,526	15,526	0	0	0
Denaturant Delivery (gallons)	6,210,526	8,000	776	1,553	1,553	1,553	1,553	776	776	776	776	0	0	0
Water Treatment Salt Loadout (tons)	20,000	25	800	1,600	1,600	1,600	800	800	800	800	0	800	800	
Employee Vehicles	50 employees		18,250	0	0	0	0	0	0	0	0	0	0	36,500
Vendor Vehicles and misc trips	50 vehicles per day		18,250	36,500	36,500	36,500	18,250	18,250	18,250	18,250	18,250	18,250	18,250	0
TOTALS				200,153	200,153	200,153	181,103	100,077	100,077	100,077	99,277	19,050	19,050	36,500
ADT				548	548	548	496	274	274	274	272	52	52	100
			Peak Single Day Modeled	548	548	548	496	274	274	274	272	52	52	100
<b><u>Fleet Loaded or Unloaded Status Mapped Out by Activity and by Segment</u></b>														
				<b>Percent of Trips Loaded</b>										
Activity	Empty Weight (tons)	Full Weight (tons)		A	B	C	D	E	F	G	H	I	J	K
Grain Receiving (tons)	15	40		50%	50%	50%	50%	100%	0%	0%	0%			
DDGS Loadout (tons)	15	40		50%	50%	50%	50%	0%	100%	100%	100%			
EtOH Loadout (gallons)	15	40		50%	50%	50%	50%	0%	0%	100%	100%			

Denaturant Delivery (gallons)	15	40		50%	50%	50%	50%	100%	100%	0%	0%			
Water Treatment Salt Loadout (tons)	15	40		50%	50%	50%	0%	0%	0%	0%		0%	100%	
Employee Vehicles	1.25	1.25												100%
Vendor Vehicles and misc trips	2.5	2.5		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
<b><u>Fleet Average Weight Calculated by Segment</u></b>				<b>Fleet Weight</b>										
<b>Activity</b>	<b>Empty Weight (tons)</b>	<b>Full Weight (tons)</b>		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>
Grain Receiving (tons)	15	40		27.5	27.5	27.5	27.5	40.0	15.0	15.0	15.0			
DDGS Loadout (tons)	15	40		27.5	27.5	27.5	27.5	15.0	40.0	40.0	40.0			
EtOH Loadout (gallons)	15	40		27.5	27.5	27.5	27.5	15.0	15.0	40.0	40.0			
Denaturant Delivery (gallons)	15	40		27.5	27.5	27.5	27.5	40.0	40.0	15.0	15.0			
Water Treatment Salt Loadout (tons)	15	40		27.5	27.5	27.5	15.0	15.0	15.0	15.0		15.0	40.0	
Employee Vehicles	1.25	1.25												1.25
Vendor Vehicles and misc trips	2.5	2.5		2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
<b>Fleet Average Weight (tons)</b>				<b>22.94</b>	<b>22.94</b>	<b>22.94</b>	<b>24.93</b>	<b>25.23</b>	<b>16.76</b>	<b>20.45</b>	<b>20.49</b>	<b>3.02</b>	<b>4.07</b>	<b>1.25</b>

<b><u>Annual PTE</u></b>														
				<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>
Lenth of Segment (1 vol source) (m)				10	10	10	10	10	10	10	10	10	11	10
ADT				548	548	548	496	274	274	274	272	52	52	100
Summer sL (g/m2)				0.20	0.20	0.20	0.20	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Winter sL (g/m2)				0.60	0.60	0.60	0.60	2.40	2.40	2.40	2.40	2.40	2.40	2.40

k = 0.016 lb/VMT x 1VMT/1609.344 m = 9.942E-06 lb/m traveled				9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06
Fleet Weight (tons)				22.94	22.94	22.94	24.93	25.23	16.76	20.45	20.49	3.02	4.07	1.25
Average Speed (mph)				5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Summer Factor (lb/vol source*hr)				4.39E-03	4.39E-03	4.39E-03	4.50E-03	5.17E-03	2.80E-03	3.77E-03	3.75E-03	4.09E-05	7.03E-05	2.08E-05
Winter Factor (lb/vol source*hr)				8.97E-03	8.97E-03	8.97E-03	9.19E-03	1.27E-02	6.90E-03	9.29E-03	9.25E-03	1.01E-04	1.73E-04	5.12E-05
Number of Segments	SUM=	232		23	40	16	16	23	18	6	29	25	22	14
Winter Months				3	3	3	3	3	3	3	3	3	3	3
Summer Months				9	9	9	9	9	9	9	9	9	9	9
PM10 PTE (tpy)	SUM=	4.13E+00		5.58E-01	9.70E-01	3.88E-01	3.97E-01	7.11E-01	3.02E-01	1.35E-01	6.51E-01	6.11E-03	9.25E-03	1.74E-03
PMTOT PTE (tpu)	SUM=	2.12E+01		2.86E+00	4.97E+00	1.99E+00	2.04E+00	3.65E+00	1.55E+00	6.94E-01	3.34E+00	3.13E-02	4.74E-02	8.92E-03
PM2.5 PTE (tpy)	SUM=	1.03E+00		1.39E-01	2.42E-01	9.70E-02	9.94E-02	1.78E-01	7.54E-02	3.38E-02	1.63E-01	1.53E-03	2.31E-03	4.35E-04

**Peak Daily Emission  
(modeling basis)**

				A	B	C	D	E	F	G	H	I	J	K
Lenth of Segment (1 vol source) (m)				10	10	10	10	10	10	10	10	10	11	10
Peak Daily				548	548	548	496	274	274	274	272	52	52	100
sL (g/m2)				0.60	0.60	0.60	0.60	2.40	2.40	2.40	2.40	2.40	2.40	2.40
k = 0.016 lb/VMT x 1VMT/1609.344 m = 9.942E-06 lb/m traveled				9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06	9.942E-06
Fleet Weight (tons)				22.94	22.94	22.94	24.93	25.23	16.76	20.45	20.49	3.02	4.07	1.25
Average Speed (mph)				5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Peak Rate (lb/vol source*hr)				8.97E-03	8.97E-03	8.97E-03	9.19E-03	1.27E-02	6.90E-03	9.29E-03	9.25E-03	1.01E-04	1.73E-04	5.12E-05

### Appendix III: Better Road Dust Quantification

- Midwest Research Institute exposure profiling method with MRI peer review
- Midwest Research Institute exposure profiling method with EPA peer review
- Other possible methods with EPA peer review or EPA-approved contractor peer review
  - Past Examples: previous ADM-Marshall study and ongoing Iron Range study
  - Others: better data, research, tests, mass balance considerations, ambient monitoring, etc.

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT AIR EMISSION PERMIT NO. 09100062-003**

This technical support document is intended for all parties interested in the draft 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 draft permit.

**1. General Information**

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

Applicant/Address	Stationary Source/Address (SIC Code: <b>2869</b> )
Valero Renewable Fuels Company, LLC d/b/a Valero Welcome Plant 1444 120th Street Welcome, Martin County, MN 56181	Valero Renewable Fuels Company, LLC d/b/a Valero Welcome Plant 1444 120th Street Welcome, Martin County, MN 56181
Contact: Jim Gillingham Phone: (210) 345-3633	Contact: James Emerson Phone: (507) 728-4022

**1.2. Description of the Permit Action**

Valero Renewable Fuels Company, LLC (Valero) is constructing a dry mill fuel ethanol facility near Welcome, Minnesota. The facility will have a maximum ethanol production capacity of 118 million gallons per year (undenatured, prior to the addition of denaturant). The Valero facility will fire pipeline-quality natural gas in four conventional Dry Distillers Grains with Solubles (DDGS) Dryers and two Thermal Oxidizers with Heat Recovery Steam Generators (TO/HRSG). DDGS Dryer emissions will be controlled by the two TO/HRSG's. The TO/HRSG's will also consume the air used in the DDGS Coolers, combust methane off-gas generated at the anaerobic water treatment system, and consume gasses evolved from the distillation process. The facility will use a wet scrubber to clean Carbon Dioxide (CO<sub>2</sub>) produced by the fermentation process before emission to the atmosphere. Dust collection systems will be used for handling materials typical to the industry. The denatured ethanol product will be loaded out to both trucks and rail cars and emissions from the loadout process will be controlled by a flare. The non-process water will be partially evaporated and partially treated and recycled using a brine concentration "zero-discharge" system.



### **1.3 Description of the Activities Allowed by this Permit Action**

This permit action is a major amendment to Air Emission Permit No. 09100062-002. This major amendment will incorporate four groups of changes requested by Valero. The first set of changes is to the facility name and ownership. This facility was previously issued an air emission permit under the name, “VeraSun Welcome, LLC,” and the Permittee was identified as “VeraSun Energy Corporation.” With this permit action, the facility name will become “Valero Welcome Plant” and the Permittee will become “Valero Renewable Fuels Company, LLC d/b/a Valero Welcome Plant.” In conjunction with the name and ownership change request, the Permittee has requested an extension of 365 days to the initial performance test trigger dates specified in the existing permit. MPCA enforcement staff have worked with Valero company officials to arrive at the proposed 365-day extension and it will be accommodated in this permit action. Next, the permit will be changed to incorporate revisions that are primarily administrative in nature. These changes include renaming of various grain handling emission units, defining previously unknown (i.e. previously to-be-determined) design parameters of grain handling equipment now that the parameters are known, revising denatured ethanol storage tank design parameters, adding the methanator as an associated item to the DDGS dryers, and including several additional pieces of primarily grain handling equipment into the permit that were not listed in previous permit applications. Thirdly, this permit action will accommodate inclusion of a natural gas-fired boiler to supply steam to the WTF, along with minor ancillary changes to the WTF components. Lastly, this permit action will include a biomethanator flare as back-up control for times when the DDGS dryer/thermal oxidizer system is shut down, change the thermal oxidizer internal inspection frequency to be consistent with similar devices in operation at other facilities, and change the truck traffic requirements supported by revised ambient air impacts analysis.

With regard to the revised naming and new design parameters of grain handling equipment, Valero has provided detailed listings of the proposed changes in the applications for this permit action (permit applications dated April 10, April 23, and May 1, 2008, and April 6, 2009). There will be a total of five grain storage silos (2x520k, 1x89k, and 2x524k bushels) as compared to the initial air emission permit that specified two silos. The total grain storage capacity will be 2.2 million bushels of corn, so the facility will remain below the NSPS subp. DD applicability threshold. The proposed storage and other grain handling emission unit revised definitions do not impact potential emissions from the facility, and the emission control devices (baghouses) will remain the same as in the initial Valero air emission permit.

## **1.4 Facility Emissions**

**Table 1. Title I Emissions Increase Summary**

<b>Pollutant</b>	<b>Emissions Increase from the Modification (tpy)</b>	<b>Limited Emissions Increase from the Modification (tpy)</b>	<b>PSD/112(g) Significant Thresholds for major sources</b>	<b>NSR/112(g) Review Required? (Yes or No)</b>
PM	6.20	6.20	25	No
PM <sub>10</sub>	2.00	2.00	15	No
NO <sub>x</sub>	1.10	1.10	40	No
SO <sub>2</sub>	0.00	0.00	40	No
CO	3.50	3.50	100	No
VOC	0.40	0.40	40	No
Lead	0.00	0.00	0.6	No
Chlorine	2.00	2.00	10	No
Total HAPs	2.10	2.10	25	No

**Table 2. Facility Classification**

<b>Classification</b>	<b>Major/Affected Source</b>	<b>Synthetic Minor</b>	<b>Minor</b>
PSD			PM <sub>10</sub> , PM, NO <sub>x</sub> , CO, VOC, SO <sub>2</sub>
Part 70 Permit Program		PM <sub>10</sub> , NO <sub>x</sub> , CO, VOC	SO <sub>2</sub>
Part 63 NESHAP		HAP	

## **2. Regulatory and/or Statutory Basis**

### New Source Review

With this permit action, the Permittee will be constructing a minor source under New Source Review (NSR) regulations. When the original permit application was submitted and the original permit was issued (Air Emission Permit No. 09100062-001), the major source threshold was 100 tons per year. Now that the NSR regulations have changed with regard to major source thresholds for selected source categories (now 250 tons per year for SIC code 2869), the originally issued Title I emission limits and associated requirements are not necessary for the Valero facility to maintain NSR minor source status. The limits and associated requirements will be carried forth, however, in this permit action because the facility was designed and is intended to be operated in a manner that will achieve compliance with the limits and associated requirements in the originally issued permit.

The proposed facility is located in Martin County. In Martin County, the minor source baseline for PM<sub>10</sub> was established in 1999, when Lakefield Junction submitted a permit application for a major PM<sub>10</sub> source. Because the minor source baseline has been established, the facility must account for its consumption of PM<sub>10</sub> increment.

### Part 70 Permit Program

The facility is a minor source under the Part 70 permit program.

### New Source Performance Standards (NSPS)

Several tanks at the facility are subject to NSPS Subp. Kb. The two TO/HRSG's are subject to NSPS Subp. Db. The entire facility is subject to NSPS Subp. VV. The emergency fire pump is subject to NSPS Subp. IIII and it will be up to the Permittee to learn the new rule and comply with the regulations. The WTF boiler is subject to NSPS Subp. Dc.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility has accepted limits on HAP production such that it is a non-major source under 40 CFR pt. 63. Thus, no NESHAPs apply.

Environmental Review: An Environmental Assessment Worksheet (EAW) is mandatory if any plant that is built has the capacity to produce more than five million gallons of ethanol per year. An EAW was not completed as part of this permit action.

### 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. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

## **2.1 Ethanol Facility Issues**

### *Syrup feed to dryer*

Syrup fed to the dryer has sometimes been limited to limit uncontrolled VOC emissions. Valero will feed the syrup to the dryer in the same proportion it is produced, relative to the wet cake feed, so its feed rate is always known and controlled. Also, the exhaust gases from the dryers must go through the thermal oxidizers and meet both a VOC pounds/hour limit and a destruction efficiency limit under all operating conditions regardless of amount of syrup being fed.

### *Diesel emissions from idling trucks*

Due to the potential for as many as 300 trucks per day through the facility, a plan for minimization of diesel engine idling is required.

**Table 3. Regulatory Overview of Facility**

<b>EU, GP, or SV</b>	<b>Applicable Regulations</b>	<b>Comments:</b>
FC: Total Facility	Title I Condition: Limit to avoid classification as a major source of HAPS under 40 CFR § 63.  Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	Limit set on HAPs emissions from ethanol production to avoid NESHAPs.  Limits undenatured ethanol production to 118 million gallons per year.
GP 002: DDGS Cooler Bypass of TO	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	VOC and PM limits taken to keep emissions below major source thresholds as defined by 40 CFR § 52.21 and 40 CFR § 70.2  Limit on hours of bypass operation to ensure compliance with the VOC and PM limits.
GP 008: DDGS Dryers	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	Limits fuel to natural gas only.
GP 009: Thermal Oxidizers	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	Limits VOC and PM control efficiency. Limits temperature to determine compliance with VOC limit.
SV 001: Grain Receiving Baghouse	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	Limits PM and PM10. Baghouse pressure drop limit ensures compliance with the PM/PM10 limits.
SV 002: DDGS Baghouse	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	Limits PM and PM10. Baghouse pressure drop limit ensures compliance with the PM/PM10 limits.
SV 003: Hammermill Baghouse	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	Limits PM and PM10. Baghouse pressure drop limit ensures compliance with the PM/PM10 limits.
SV 004: CO2 Scrubber	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR	Limits VOC. Pressure drop and water flow rate limits ensure compliance with VOC limits.

	§ 70.2	
SV 005: TO/HRSG	Title I Condition: Limit to avoid classification as a major source under 40 CFR § 52.21 and 40 CFR § 70.2	Limits fuel to natural gas only.  Limits PM, NO <sub>x</sub> , SO <sub>2</sub> , VOC, CO and Opacity to less than major source levels.
FS 004: Truck Traffic	Minn. R. 7009	Limits on number of trucks allowed to enter the facility (as defined by PM <sub>10</sub> modeling parameters). Limits on truck speed on haul roads.

### 3. Technical Information

#### **3.1 Calculations of Potential to Emit**

Attachment 1 to this TSD contains the PTE summary of the facility, along with supplemental calculations. Additional supporting data and calculations are presented in the permit application materials.

#### **3.2. Air Emissions Risk Assessment (AERA) and PM<sub>10</sub> Modeling**

Valero completed a Risk Assessment Spread Sheet (RASS) as part of the Air Emissions Risk Analysis (AERA) process during the development of Air Emission Permit No. 09100062-001. A completed RASS/AERA shows a quantification of the risk to human health from emissions of specific pollutants. The conclusion from the analysis is that the Valero facility does not present an unacceptable risk to human health.

Additional modeling was performed as part of this permit action due to the number of planned changes to the facility relative to the Valero facility described in Air Emission Permit No. 09100062-001. The following statements summarize the additional modeling exercises:

- Modeling was resubmitted due to changes to the originally modeled facility.
- PM<sub>10</sub> was of primary concern for the remodel.
- PM<sub>10</sub> was found to be well below the standard after adding in background:

**Table 4. Modeling Summary**

Pollutant	Averaging Period	MAAQS Primary Standard (ug/m3)	MPCA PSD Increment Standard (ug/m3)	Background (ug/m3)	Maximum Facility Impact (ug/m3)	Maximum Increment Consumed (ug/m3)	MAAQS Result (ug/m3)
PM <sub>10</sub>	24-hour	150	25	40.9	24.4	24.4	65.3
	Annual	50	16	10.9	4.3	4.4	15.2

- Background data obtained from FAR sources for the August 2006 revised application.
- A speed limit of 5 miles per hour (mph) was implemented from the stop sign at the entrance to the Administration Building parking lot up to the Guard House located at the entrance to the production area. A speed limit of 10 mph will be implemented for the rest of Valero's haul roads.
- All haul roads shall be swept/cleaned daily or when silt has accumulated to visible levels on the road, whichever occurs first.
- All roads within the facility should be paved.
- Install fencing (property line) before plant start-up.
- Modeling assumed a maximum daily number of trucks defined by function (i.e. ethanol loadout, corn delivery, DDGS loadout, etc.). The calculations were not directly on the basis of the number of trucks (which assumed 90% hopper and 10% straight trucks), but on the basis of the mass of the material being transported into and out of the facility.

The additional modeling activity addresses all site updates and refinements made since Valero's original submittal in August 2006 and was subsequently approved by MPCA in April 2008.

### **3.3. Periodic Monitoring**

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

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

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

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

**Table 5. Periodic Monitoring**

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
FC: Total Facility	Title I Condition to Avoid Part 70, PSD, & Part 63	Recordkeeping of ethanol production. Monthly recordkeeping of HAP emissions.	
GP 002: Limit of DDGS Cooler By-Pass	Title I Condition to Avoid Part 70 and PSD	Recordkeeping of number of hours bypass is operated.	
GP 009: Thermal Oxidizers	Title I Condition to Avoid Part 70 and PSD	Recordkeeping of thermal oxidizer temperature.	
SV 001: Grain Receiving Baghouse	Title I Condition to Avoid Part 70 and PSD	Baghouse pressure drop monitoring.	See GP 003 for baghouse monitoring requirements.
SV 002: DDGS Baghouse	Title I Condition to Avoid Part 70 and PSD	Baghouse pressure drop monitoring.	See GP 003 for baghouse monitoring requirements.
SV 003: Hammermill Baghouse	Title I Condition to Avoid Part 70 and PSD	Baghouse pressure drop monitoring.	See GP 003 for baghouse monitoring requirements.
SV 004: CO2 Scrubber	Title I Condition to Avoid Part 70 and PSD	Pressure drop and water flow rate monitoring.	
SV 005: TO/HRSG #1 and #2	Title I Condition to Avoid Part 70 and PSD	Thermal oxidizer temperature monitoring.	See GP 009 for additional thermal oxidizer monitoring requirements.
SV 011: Fire Pump	Minn. R. 7011.2300	none	It is highly unlikely that the SO2 and Opacity limits could be exceeded, so no periodic monitoring is necessary.
FS 004: Truck Traffic	Title I Condition to Avoid Part 70 and PSD	Recordkeeping of the number of trucks entering and leaving the facility each day.	

### **3.4 Insignificant Activities**

Valero has several operations which are classified as insignificant activities. These are listed in Appendix I to the permit. It should be noted that one additional insignificant activity was listed



in the permit application dated April 6, 2009 (a natural gas-fired water bath heater). This item was added to the insignificant activities list in the draft permit.

#### **4. Conclusion**

The public notice period for this draft permit was from December 29, 2009 through January 28, 2010. No comments were received during the public notice period.

Based on the information provided by Valero, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 09100062-003, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:

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Sarah Kilgriff/Jennifer Lovett/Rachel Peters (compliance/enforcement)

Curt Stock (stack testing)

Jessica Forsberg (peer reviewer)

Attachments: 1. Emissions Data and Calculations

## ATTACHMENT I: EMISSIONS DATA AND CALCULATIONS