



OCT 29 2012

Kirk Lund  
Pacific Ethanol Madera  
400 Capitol Mall, Suite 2060  
Sacramento, CA 95814

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # C-4261  
Project # C-1111919**

Dear Mr. Lund:

Enclosed for your review and comment is the District's analysis of Pacific Ethanol Madera's application for the Federally Mandated Operating Permit for its ethanol production facility located at 31470 Avenue 12, Madera, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

cc: John Yoshimura, Permit Services Engineer

Attachments

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



OCT 29 2012

Gerardo C. Rios, Chief  
Permits Office (AIR-3)  
U.S. EPA - Region IX  
75 Hawthorne St  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # C-4261  
Project # C-1111919**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Pacific Ethanol Madera's application for the Federally Mandated Operating Permit for its ethanol production facility located at 31470 Avenue 12, Madera, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 45-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

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OCT 29 2012

Mike Tollstrup, Chief  
Project Assessment Branch  
Air Resources Board  
P O Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # C-4261  
Project # C-1111919**

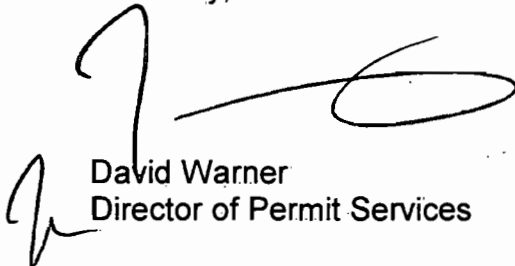
Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Pacific Ethanol Madera's application for the Federally Mandated Operating Permit for its ethanol production facility located at 31470 Avenue 12, Madera, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,



David Warner  
Director of Permit Services

cc: John Yoshimura, Permit Services Engineer

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Fresno Bee

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
FEDERALLY MANDATED OPERATING PERMITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of the Federally Mandated Operating permits to Pacific Ethanol Madera for its ethanol production facility located at 31470 Avenue 12, Madera, California.

The District's analysis of the legal and factual basis for this proposed action, project #C-1111919, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed Federally Mandated Operating initial permits. If requested by the public, the District will hold a public hearing regarding issuance of this initial permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

# **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**

## **Proposed Initial TV Engineering Evaluation**

**Pacific Ethanol Madera  
C-4261**

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## TITLE V APPLICATION REVIEW

**Engineer:** John Yoshimura  
**Date:** August 23, 2012

**Facility Number:** C-4261  
**Facility Name:** Pacific Ethanol Madera LLC  
**Mailing Address:** 400 Capitol Mall Suite 2060  
Sacramento, CA 95814

**Contact Name:** Cheryl Davis  
**Title:** Director of Permitting and Compliance  
**Phone:** (916) 403-2129

**Responsible Official:** John Miller  
**Title:** COO

**Project # :** C-1111919  
**Deemed Complete:** 6/15/11

### I. PROPOSAL

Pacific Ethanol Madera LLC (Pacific Ethanol) is proposing that an initial Title V permit be issued for its existing ethanol production facility in Madera, California. Pacific Ethanol is applying for a Title V permit because its potential to emit for Volatile Organic Compound (VOC) emissions is above the 20,000 lb/year threshold.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

### II. FACILITY LOCATION

Pacific Ethanol Madera LLC is located at 31470 Avenue 12 in Madera, California.

### III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is shown in Attachment B.

A summary of the exempt equipment categories which describe the insignificant activities or equipment at the facility not requiring a permit is shown in Attachment D. This equipment is not exempt from facility-wide requirements.

#### **IV. GENERAL PERMIT TEMPLATE USAGE**

The applicant has requested to utilize template No. SJV-UM-0-3, Facility Wide Umbrella. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

#### **V. SCOPE OF EPA AND PUBLIC REVIEW**

Certain segments of the proposed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

As discussed above, the applicant has requested to utilize general umbrella template 0-3. Permit conditions associated with the use of umbrella template 0-3 are not subject to further EPA and public review.

#### **VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES**

The applicant has proposed the use of general umbrella template 0-3 (4/27/10). The following applicable requirements are addressed by general umbrella template 0-3.

- District Rule 1100, Equipment Breakdown (Amended December 17, 1992)
- District Rule 1160, Emission Statements (Adopted November 18, 1992)
- District Rule 2010, Permits Required (Amended December 17, 1992)

- District Rule 2020, Exemptions<sup>1</sup>  
(Amended December 20, 2007)
- District Rule 2031, Transfer of Permits  
(Amended December 17, 1992)
- District Rule 2040, Applications  
(Amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications  
(Amended December 17, 1992)
- District Rule 2080, Conditional Approval  
(Amended December 17, 1992)
- District Rule 2520, Federally Mandated Operating Permits  
(Amended June 21, 2001) Sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1, 9.13.2, 9.16, and 10.0
- District Rule 4101, Visible Emissions  
(Amended February 17, 2005)
- District Rule 4601, Architectural Coatings  
(Amended December 17, 2009)
- District Rule 8021, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM<sub>10</sub>) from Construction, Demolition, Excavation, and Extraction Activities  
(Amended August 19, 2004)
- District Rule 8031, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM<sub>10</sub>) from Handling and Storage of Bulk Materials  
(Amended August 19, 2004)
- District Rule 8041, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM<sub>10</sub>) from Carryout and Trackout  
(Amended August 19, 2004)
- District Rule 8051, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM<sub>10</sub>) from Open Areas  
(Amended August 19, 2004)

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<sup>1</sup> The amendments made to this rule on August 18, 2011 have no impact to this source; therefore template SJV-UM-0-3 is still valid for this project.



- District Rule 8061, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM<sub>10</sub>) from Paved and Unpaved Roads (Amended August 19, 2004)
- District Rule 8071, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM<sub>10</sub>) from Unpaved Vehicle/Equipment Areas (Amended September 16, 2004)
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos
- 40 CFR Part 82, Subpart B and F, Stratospheric Ozone

## VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES

- District Rule 1070, Inspections (Amended December 17, 1992)
- District Rule 1080, Stack Monitoring (Amended December 17, 1992)
- District Rule 1081, Source Sampling (Amended December 16, 1993)
- District Rule 2201, New and Modified Stationary Source Review Rule (Amended April 21, 2011)
- District Rule 2520, Federally Mandated Operating Permits (Amended June 21, 2001) Sections not addressed by Umbrella Template
- District Rule 4001, New Source Performance Standards (Amended April 14, 1999)
- District Rule 4002, National Emission Standards for Hazardous Air Pollutants (Amended May 20, 2004)
- District Rule 4201, Particulate Matter Concentration (Amended December 17, 1992)
- District Rule 4202, Particulate Matter Emission Rate (Amended 12/17/92)
- District Rule 4301, Fuel Burning Equipment (Amended December 17, 1992)
- District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters greater than 5.0 MMBtu/hr (Adopted October 16, 2008)

- District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants  
(Adopted April 20, 2005)
- District Rule 4621, Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels and Bulk Plants  
(Amended December 20, 2007)
- District Rule 4623, Storage of Organic Liquids  
(Amended May 19, 2005)
- District Rule 4701, Internal Combustion Engines – Phase 1  
(Amended 8/21/03)
- District Rule 4702, Internal Combustion Engines – Phase 2  
(Amended 4/20/06)
- District Rule 4801, Sulfur Compounds  
(Amended December 17, 1992)
- District Rule 7012, Hexavalent Chromium – Cooling Towers  
(Amended December 17, 1992)
- 40 CFR Part 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR Part 60, Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
- 40 CFR Part 60, Subpart DD Standards of Performance for Grain Elevators
- 40 CFR Part 60, Subpart VV Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
- 40 CFR Part 60, Subpart III Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes
- 40 CFR Part 60, Subpart NNN Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations

- 40 CFR Part 60, Subpart RRR Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes
- 40 CFR Part 63, Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers (amended April 7, 2006)
- 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE) (amended January 18, 2008)
- 40 CFR Part 64, Compliance Assurance Monitoring (CAM)

## VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as Federally Enforceable through Title V Permit. This facility is subject to the following rules that are not currently federally enforceable:

### A. Rules Not Updated

District Rule 4102, Nuisance  
(Amended December 17, 1992)

For this facility, condition 41 of the requirements for facility wide permit C-4261-0-1 and condition 3 and 8 of C-4261-53, condition 2 of C-4261-55 and '-56, and condition 3 of C-4261-58 are based on the rule listed above and are not Federally Enforceable through Title V permit.

17 CCR 93115, California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 7.5, Measure 93115 (adopted December 8, 2004)

Conditions 4, 5, 6, 7, 8, and 15 of the requirements for permit unit C-4261-53-1 are based on the rule listed above and are not Federally Enforceable through Title V. However, these conditions also show compliance with several SIP Approved District Rules as discussed below. Therefore, these conditions are listed as Federally Enforceable on the permit requirements.

## **IX. COMPLIANCE**

### **A. Requirements Addressed by Model General Permit Templates**

#### **1. Facility Wide Requirements**

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-3 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility wide requirements as condition numbers 1 through 40 to assure compliance with these requirements.

### **B. Requirements Not Addressed by Model General Permit Templates**

#### **District Rule 1070, Inspections**

This rule requires that the inspections shall be made by the enforcement agency for the purpose of obtaining information necessary to determine whether air pollution sources are in compliance with applicable rules and regulations. Further, the District has the authority to require recordkeeping, to make inspections and to conduct tests of air pollution sources.

The necessary recordkeeping requirements are included in each Permit to Operate. Thus, compliance is expected with this rule.

#### **District Rule 1080, Stack Monitoring**

This rule grants the APCO authority to request the installation, use, maintenance, and inspection of continuous monitoring equipment. This rule also specifies the performance standards for the equipment and administrative recordkeeping, reporting, and violation and equipment breakdown notification requirements.

This rule does not require installation of continuous monitoring equipment, i.e. CEMS type equipment for the units at an ethanol production facility. Therefore, no specific conditions are included in the permits as part of this project.

#### **District Rule 1081, Source Sampling**

This rule ensures that any source operation which emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination.

Periodic sampling sources include: RTO to measure VOC (lb-VOC/1,000 gal of ethanol produced), and cooling tower water sampling for measuring total dissolved solids to determine compliance with the daily emissions limit. These sources are presumed to be equipped adequate accessible ports to collect samples since these sources had been tested at least more than once in the past.

#### **District Rule 2201, New and Modified Stationary Source Review Rule**

Permits to Operate (PTO) C-4261-29, 30, 32 through '-51, and '-53 to '-58 were subject to District's NSR Rule (Rule 2201) at least once prior to the preparation of this Title V document. The NSR conditions included in these permits are now federally-enforceable through the Title V permit per guidance in the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995.

#### **District Rule 2520, Federally Mandated Operating Permits**

Except for the discussion below, the proposed use of a facility-wide template SJV-UM-0-3 covers the requirements of this Rule.

There are no federally applicable GHG requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40 CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40 CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

#### **District Rule 4001, New Source Performance Standards**

This rule incorporates the New Source Performance Standards from Part 60, Chapter 1, Title 40, Code of Regulation (CFR).

This rule is applicable to all new sources of air pollution and modification of existing sources of air pollution. The Subparts that are potentially applicable to Pacific Ethanol are listed and discussed below.

#### **40 CFR Part 60, Subpart DD: Standards of performance for Grain Elevators**

Pursuant to Section 60.300(a), the provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under 40 CFR Section 60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.

Pursuant to Section 60.301(c), a grain terminal elevator is defined as any grain elevator which has a permanent storage capacity of more than 88,100 m<sup>3</sup> (ca. 2.5

million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.

Pursuant to Section 60.301(f), a grain storage elevator is defined as any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m<sup>3</sup> (ca. 1 million bushels).

The facility receives and stores corn for the sole purpose of producing ethanol. Therefore, it does not meet the definition of a grain storage elevator.

The grain receiving and storage operation capacity (K) is:

$$K = (8 \times 165,302 \text{ bu}) + (3 \times 48.227 \text{ bu}) = 1,467,097 \text{ bushels} < 2,500,000 \text{ bushels}$$

As shown above, the maximum grain storage capacity at this facility is 1,467,097 million bushels. Therefore, the grain processing operations at this facility do not meet the definition of a grain terminal elevator.

Since the grain processing operations at this facility do not meet the definitions of a grain terminal elevator or a grain storage elevator, the requirements of this subpart are not applicable and no further discussion is required.

**40 CFR Part 60, Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984**

Pursuant to Section 60.110b(a), except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) (equivalent to 19,813 gal) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

Pursuant to Section 60.110b(b), this subpart does not apply to the following:

- storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> (equivalent to 39,890 gal) storing a liquid with a maximum True Vapor Pressure (TVP) less than 3.5 kilopascals (kPa) (equivalent to 0.5 psi); or
- with a capacity greater than or equal to 75 m<sup>3</sup> (equivalent to 19,813 gal) but less than 151 m<sup>3</sup> (equivalent to 39,890 gal) storing a liquid with a maximum true vapor pressure less than 15.0 kPa (equivalent to 2.2 psi).

Per Section 60.111b, a storage vessel is defined as any tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

- (1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;
- (2) Subsurface caverns or porous rock reservoirs; or
- (3) Process tanks.

Per Section 60.111b, a process tank is defined as a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

The liquefaction tank (C-4261-38), fermentation tanks (C-4261-39), beerwell tank (C-4261-40) and process condensate tank (C-4261-41) are all used in the production of ethanol. They are not used to store volatile organic liquids. Therefore, they do not meet the definition of a storage vessel. Since these tanks do not meet the definition of a storage vessel, the requirements of this subpart are not applicable and no further discussion is required.

The 190-proof ethanol storage tank (C-4261-48), 200-proof ethanol storage tanks (C-4261-45 and '46), denatured ethanol storage tanks (C-4261-47 and '56) and natural gasoline storage tank (C-4261-55) all store ethanol or gasoline. Ethanol and natural gasoline are both considered a volatile organic liquid. The tank capacities and true vapor pressures (TVP) compared to the TVP applicability requirements of this subpart.

However, Section 60.110(d)(2) states that this subpart shall not apply to pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere. The new 35,000 gallon totally enclosed natural gasoline storage tank is a pressure vessel designed to not have emissions to the atmosphere. Therefore, the requirements of this subpart are not applicable to the new natural gasoline storage tank.

Permit Units	Tank Capacity (gallons)	TVP (psia)	TVP Thresholds (psia)
<b>#C-4261-45</b> 200-Proof Ethanol Storage Tank	116,800	0.7477	0.5
<b>#C-4261-46</b> 200-Proof Ethanol Storage Tank	116,800	0.7477	0.5

<b>#C-4261-47</b> Denatured Ethanol Storage Tank	350,000	0.7477	0.5
<b>#C-4261-48</b> 190-Proof Ethanol Storage Tank	74,300	0.7477	0.5
<b>#C-4261-56</b> Denatured Ethanol Storage Tank	350,000	0.7477	0.5

Therefore, the requirements of this subpart are applicable to each of these storage tanks.

The following requirements ensure compliance with the requirements of this subpart:

- The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)]
- The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
- Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)]
- Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)]
- Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)]



- Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)]
- Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)]
- Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)]
- Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
- The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)]
- The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)]
- The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)]
- Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)]
- Operator shall keep a record of the liquids stored in this container, the period of storage, and the maximum true vapor pressure (TVP) of that liquid during the respective storage period. [District Rule 4623 and 40 CFR 60.116b(c)]
- Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that

is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)]

- For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)]
- Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)]
- Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)]
- Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)]
- Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40 CFR 60.116b(f)]
- The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of

inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]

**40 CFR Part 60, Subpart VV: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry**

Pursuant to Section 60.480(a)(1), the provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

Pursuant to Section 60.481, Synthetic organic chemicals manufacturing industry is defined as the industry that produces, as intermediates or final products, one or more of the chemicals listed in Section 60.489, which includes ethanol.

Section 60.480(b) also states that any affected facility under paragraph (a) of this section that commences construction or modification after January 5, 1981, shall be subject to the requirements of this subpart.

Ethanol is considered a synthetic organic chemical and the facility commenced construction after January 5, 1981; therefore, the requirements of this subpart are applicable to this facility.

Section 60.480(a)(2) states that the group of all equipment (defined in §60.481) within a process unit is an affected facility. Section 60.481 defines equipment as each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart. In keeping with previous application reviews for the units involved in this project, it will be assumed that all or part of the following processes are in VOC service during the ethanol production process (only the slurry tank C-4261-36) does not have any components associated with it):

- C-4261-38: Liquefaction Tank
- C-4261-39: Fermentation Process with Four Fermentation Tanks
- C-4261-40: Beerwell Tank
- C-4261-41: Distillation Process
- C-4261-42: Process Condensate Tank
- C-4261-43: Wet Cake Process

- C-4261-45: 190-Proof Ethanol Storage Tank
- C-4261-46: 200-Proof Ethanol Storage Tank
- C-4261-47: Denatured Ethanol Storage Tank
- C-4261-48: Gasoline Storage Tank
- C-4261-55: Natural Gasoline Storage Tank
- C-4261-56: Denatured Ethanol Storage Tank #2

Therefore, the requirements of 40 CFR 60, Subparts VV will be applicable to these processes.

40 CFR Section 60.592(a) requires the facility to comply with the following standards requirements:

- §60.482-1: Standards (general),
- §60.482-2: Standards: Pumps in light liquid service,
- §60.482-3: Standards: Compressors,
- §60.482-4: Standards: Pressure relief devices in gas/vapor service,
- §60.482-5: Standards: Sampling connection systems,
- §60.482-6: Standards: Open-ended valves or lines,
- §60.482-7: Standards: Valves in gas/vapor service and in light liquid service,
- §60.482-8: Standards: Pumps and valves in heavy liquid service ,
- §60.482-9: Standards: Delay of repair, and
- §60.482-10: Standards: Closed vent systems and control devices

The following requirements ensure compliance with the requirements of this subpart:

- Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)]
- Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)]
- An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)]
- If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner

or operator shall comply with the requirements of that determination[40 CFR 60.482-1(c)]

- Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)]
- Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b), and District Rule 2201]
- When a leak is detected for each PLLS, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)]
- Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)]
- Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e), and District Rule 2201]
- If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)]
- Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the

- equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)]
- Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)]
  - Unless exempt under 40 CFR 60.482-3, 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 60.482-3(h) and (i). The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3(b)(1), (2), or (3). [40 CFR 60.482-3(a), (b), and (c)]
  - If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. 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. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3(d), (e), and (f)]
  - If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)]
  - Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3(i)(1) and (2). [40 CFR 60.482-3(i), and District Rule 2201]
  - Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3(j)]
  - 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 100 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a), and District Rule 2201]

- 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 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b), and District Rule 2201]
- Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)]
- Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)]
- Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)]
- 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 60.482-1(c). 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. 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 this condition at all other times. [40 CFR 60.482-6(a) and (c)]
- 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. [40 CFR 60.482-6(b)]

- Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)]
- Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)]
- Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7(a) and (b), and District Rule 2201]
- Any valve in gas/vapor service or in light liquid service 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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)]
- When a leak is detected for any valve in gas/vapor service or in light liquid service, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)]
- Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f), and District Rule 2201]
- Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires



monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)]

- Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)]
- If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8(a) and (b); and District Rule 2201]
- When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, 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 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)]
- For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)]
- For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum

residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)]

- Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)]
- Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g), and District Rule 2201]
- Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)]
- If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)]
- Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)]
- Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)]
- The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for

inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)]

- Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)]
- The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.483-1 and 60.483-2]
- The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VV. [40 CFR 60.484(a)]
- In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)]
- The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppmv of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 100 ppmv methane or n-hexane for valves and connectors and 500 ppmv methane or n-hexane for pumps and compressor seals. [40 CFR 60.485(b); and District Rule 2201]
- The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and

500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485(c); and District Rule 2201]

- The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)]
- The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)]
- Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)]
- The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)]
- An owner or operator of more than one affected facility subject to the provisions Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)]
- When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, 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 60.482-7(c) and no leak has

- been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)]
- When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 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 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals; 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 (or designate) whose decision it was that 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; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c); and District Rule 2201]
  - The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)]
  - The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the

requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), §60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)]

- The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)]
- The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)]
- The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)]
- The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)]
- Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)]
- The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV. [40 CFR 60.486(k)]
- All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 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 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (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 in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)]

- An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)]
- An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VV 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 60.487(e)]
- The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)]

**40 CFR Part 60, Subpart III: Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes**

Pursuant to Section 60.61(a), the provisions of this subpart apply to each affected facility designated in paragraph (b) of this section that produces any of the chemicals listed in Section 60.617 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c) of this section.

Section 60.617 does not list ethanol as a product, co-product, by product, or intermediate chemical. Therefore, this ethanol production facility is not subject to the requirements of this subpart, so no further discussion is required.

**40 CFR Part 60, Subpart NNN: Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations**

Based on a memorandum from Environment Protection Agency (EPA), Washington DC, dated October 07, 1996, and the memorandum from EPA Washington DC, dated September 06, 1998, 40 CFR Part 60, Subpart NNN, is applicable to facilities involved in synthesis of organic chemicals using petroleum based feedstocks and not biological fermentation process where emissions characteristics and industry economics differ.

Pacific Ethanol Madera produces ethanol from the fermentation of corn. This process can be considered a biological fermentation process. Therefore, the requirements of 40 CFR Part 60, Subpart NNN are not applicable to this facility, so no further discussion is required.

**40 CFR Part 60, Subpart RRR: Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes**

Based on a memorandum from the Environment Protection Agency (EPA), Washington DC, dated October 7, 1996, and the memorandum from EPA Washington DC, dated September 06, 1998, 40 CFR Part 60, Subpart RRR, is applicable to facilities involved in the synthesis of organic chemicals using petroleum based feedstocks and not biological fermentation processes where emissions characteristics and industry economics differ.

Pacific Ethanol Madera produces ethanol from the fermentation of corn. This process can be considered a biological fermentation process. Therefore, the requirements of 40 CFR Part 60, Subpart RRR are not applicable to this facility and, so no further discussion is required.

**District Rule 4001, National Emission Standards for Hazardous Air Pollutants**

**40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

**C-4261-53-1**

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart IIII is the only subpart that applies to compression-ignited internal



combustion engines. The engine was constructed after July 11, 2005, and is not a fire pump engine; therefore, Subpart IIII is applicable to permit unit C-4261-53.

The following table demonstrates how the engine complies with the requirements of 40 CFR Part 60 Subpart IIII.

<b>40 CFR 60 Subpart IIII Requirements for New Emergency IC Engines Powering Generators (2007 and Later Model Year)</b>	<b>Proposed Method of Compliance with 40 CFR 60 Subpart IIII Requirements</b>
Engine(s) must meet the appropriate Subpart IIII emission standards for new engines, based on the model year, size, and number of liters per cylinder.	At the time of installation, the facility installed an engine(s) certified to the latest EPA Tier Certification level for the applicable horsepower range and model year, guaranteeing compliance with the emission standards of Subpart IIII.
Engine(s) must be fired on 500 ppm sulfur content fuel or less, and fuel with a minimum centane index of 40 or a maximum aromatic content of 35 percent by volume. Starting in October 1, 2010, the maximum allowable sulfur fuel content will be lowered to 15 ppm.	The facility uses CARB certified diesel fuel, which meets all of the fuel requirements listed in Subpart IIII. A permit condition enforcing this requirement was included earlier in this evaluation.
The operator/owner must install a non-resettable hour meter prior to startup of the engine(s).	The is equipped with a non-resettable hour meter. The following condition will be included on the permit: <ul style="list-style-type: none"> <li>This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII]</li> </ul>
Emergency engine(s) may be operated for the purpose of maintenance and testing up to 100 hours per year. There is no limit on emergency use.	The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine maintenance and testing to 100 hours/year. Thus, compliance is expected.
The owner/operator must operate and maintain the engine(s) and any installed control devices according to the manufacturers written instructions.	The following condition will be included on the permit: <ul style="list-style-type: none"> <li>This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII]</li> </ul>

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**District Rule 4002, National Emission Standards for Hazardous Air Pollutants**

**40 CFR Part 63, Subpart Q - National Emissions Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers**

**C-4261-54-1**

This rule incorporates NESHAPS from Part 63, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals and are either major sources or are integral parts of facilities that are major sources as defined in Section 63.401.

Permit unit C-4261-54-1 is an existing cooling tower, however, the facility does not operate with chromium-based water treatment chemicals (condition #4 of C-4261-54-1); therefore, the requirements of this subpart do not apply and no further discussion is required.

**40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

Emergency engines are subject to this subpart if they are operated at a major or area source of Hazardous Air Pollutant (HAP) emissions. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. An area source of HAPs is a facility is not a major source of HAPs. The proposed engine(s) are new stationary RICE located at an area source of HAP emissions; therefore, these engines are subject to this Subpart.

40 CFR 63 Subpart ZZZZ requires the following engines to comply with 40 CFR 60 Subpart IIII:

- (1) A new or reconstructed stationary RICE located at an area source;
- (2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
- (4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

The engine was installed after June 12, 2006; therefore, the engine will be in compliance with 40 CFR 60 Subpart IIII.

#### **District Rule 4101, Visible Emissions**

Section 5.0 indicates that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is dark or darker than Ringlemann 1 or equivalent to 20% opacity. The following condition ensures continued compliance with this rule:

District Policy SSP 1005 states that an opacity limitation of less than 5% shall be imposed as a permit condition for an operation served by a dust collector or baghouse with a control efficiency of 99% or greater for PM<sub>10</sub> emissions. Therefore, the following conditions ensure continued compliance with visible emission requirements:

#### **C-4261-29 (grain receiving and storage operation):**

The grain receiving pit is served by a baghouse and the storage silos are served by bin vent filters. The baghouse and bin vent filters each have a guaranteed PM<sub>10</sub> control efficiency of 99%. Therefore, in accordance SSP 1005, visible emissions will be limited to 5% opacity and the following condition ensures compliance with the requirements of this rule:

- Visible emissions from the exhaust of the baghouse serving the grain receiving operation and from the exhaust of the bin vent filters serving the grain storage silos shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101]

As shown above, it is assumed that 20% of the PM<sub>10</sub> emissions from the grain receiving pit are not captured and sent to the baghouse. Therefore, the following condition ensures compliance with the requirements of this rule:

- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

C-4261-30 (grain flaking and cooling operation):

As discussed above, the grain flaking and cooling operation is served by high efficiency compact separators that have a control efficiency of 95% for PM<sub>10</sub> emissions. Since the separators do not have a control efficiency guarantee of 99% or greater, visible emissions will not be limited to 5% opacity. The following condition ensures continued compliance with the requirements of this rule:

- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

C-4261-32 (flaked grain storage operation):

The flaked grain storage operation is served by bin vent filters. The bin vent filters have a guaranteed PM<sub>10</sub> control efficiency of 99%. Therefore, in accordance SSP 1005, visible emissions will be limited to 5% opacity and the following condition ensures continued compliance with the requirements of this rule:

- Visible emissions from the exhaust of the bin vent filters serving the grain storage silos shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101]

C-4261-33 (flaked grain truck loadout operation):

The flaked grain truck loadout operation is served by a flexible loadout spout. The flexible loadout spot is not guaranteed to control PM<sub>10</sub> emissions with an efficiency of 99%. Therefore, visible emissions from the loadout spout will not be limited to 5% opacity. The following condition ensures continued compliance with the requirements of this rule:

- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

C-4261-34 and '-35 (hammermilling operations):

The baghouse serving the hammermills and associated conveying equipment within these operations has a guaranteed PM<sub>10</sub> control efficiency of 99%. Therefore, Per SSP 1005, visible emissions will be limited to 5% opacity.

- Visible emissions from the exhaust of the baghouse(s) serving the hammermill and associated conveying equipment shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101]

C-4261-38 through C-4261-48 and C-4261-53 through C-4261-58 (processes not served by a baghouse or dust collector):

- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Therefore, compliance with District Rule 4101 requirements is expected.

**District Rule 4201, Particulate Matter Concentration**

C-4261-29 (grain receiving and storage):

Grain Receiving Baghouse:

As long as the equipment is properly maintained and operated it is expected that the particulate matter concentration can be calculated using the following equation:

$$\text{PM Concentration (gr/dscf)} = \text{PM Emissions (gr/day)} / (\text{Exhaust Flow (scfm)})$$

The applicant states that the exhaust flow rate is 2,000 dscfm at ambient air temperature. As a worst case it will be assumed that 50% of the PM emitted is PM<sub>10</sub>. As a conservative estimate, it will be assumed that the baghouse would need to be in operation 16 hours per day. Therefore, the particulate matter emission concentration at ambient temperature is:

$$\begin{aligned} \text{PM Concentration (gr/dscf):} & \quad (9.4 \text{ lb-PM}_{10}/\text{day} \times 2 \text{ lb-PM}/\text{lb-PM}_{10} \times 7,000 \text{ gr/lb}) / \\ & \quad (2,000 \text{ dscfm} \times 960 \text{ min/day}) \\ & \quad = 0.069 \text{ gr/dscf} \end{aligned}$$

Therefore, it can be assumed, that under dry conditions, the particulate matter emissions from the dust collector will not exceed the maximum allowable value of 0.1 grains/dscf and all of the requirements of this rule will be met.

Storage Silo Bin Vent Filters:

As long as the equipment is properly maintained and operated it is expected that the particulate matter concentration will be:

$$\text{PM Concentration (gr/dscf)} = \text{PM Emissions (gr/day)} / (\text{Exhaust Flow (scfm)})$$

The storage silos are served by bin vent filters. The airflow going through the bin vent filters is generated as the grain entering the storage silo displaces the air that is already inside. As a conservative estimate, it will be assumed that the maximum airflow through the bin vent filters is 1,000 dscfm. As a worst case it will be assumed that 50% of the PM emitted is PM<sub>10</sub>. As a conservative estimate, it will be assumed that the bin vent filters would need to be in operation 16 hours per day. Therefore, the particulate matter emission concentration at ambient temperature is:

$$\begin{aligned} \text{PM Concentration (gr/dscf):} & \quad (6.1 \text{ lb-PM}_{10}/\text{day} \times 2.0 \text{ lb-PM/lb-PM}_{10} \times 7,000 \text{ gr/lb}) \\ & \quad / (1,000 \text{ dscfm} \times 960 \text{ min/day}) \\ & \quad = 0.089 \text{ gr/dscf} \end{aligned}$$

Therefore, it can be assumed, that under dry conditions, the particulate matter emissions from the dust collector will not exceed the maximum allowable value of 0.1 grains/dscf and all of the requirements of this rule will be met.

C-4261-30 (grain flaking and cooling operation):

As long as the equipment is properly maintained and operated it is expected that the particulate matter concentration will be:

$$\text{PM Concentration (gr/dscf)} = \text{PM Emissions (gr/day)} / (\text{Exhaust Flow (scfm)})$$

The applicant states that the exhaust flow rate is 67,500 dscfm at ambient air temperature. As a worst case it will be assumed that 50% of the PM emitted is PM<sub>10</sub>. As a conservative estimate, it will also be assumed that the high efficiency separators serving this operation would need to be in operation 12 hours per day. Therefore, the particulate matter emission concentration at ambient temperature is:

$$\begin{aligned} \text{PM Concentration (gr/dscf):} & \quad (27.7 \text{ lb-PM}_{10}/\text{day} \times 2 \text{ lb-PM/lb-PM}_{10} \times 7,000 \text{ gr/lb}) / \\ & \quad (15,000 \text{ dscfm} \times 720 \text{ min/day}) \\ & \quad = 0.036 \text{ gr/dscf} \end{aligned}$$

Therefore, it can be assumed, that under dry conditions, the particulate matter emissions from the high efficiency compact separators will not exceed the maximum allowable value of 0.1 grains/dscf and all of the requirements of this rule will be met.

C-4261-32 (flaked grain storage operation):

As long as the equipment is properly maintained and operated it is expected that the particulate matter concentration will be:

$$\text{PM Concentration (gr/dscf)} = \text{PM Emissions (gr/day)} / (\text{Exhaust Flow (scfm)} \times \text{Operation (min/day)})$$

The storage silos are served by bin vent filters. The airflow going through the bin vent filters is generated as the grain entering the storage silo displaces the air that is already inside. As a conservative estimate, it will be assumed that the maximum airflow through the bin vent filters is 1,000 dscfm. As a worst case it will be assumed that 50% of the PM emitted is PM<sub>10</sub>. As a conservative estimate, it will be assumed that the bin vent filters would need to be in operation 16 hours per day. Therefore, the particulate matter emission concentration at ambient temperature is:

$$\begin{aligned} \text{PM Concentration (gr/dscf):} & \quad (0.7 \text{ lb-PM}_{10}/\text{day} \times 2.0 \text{ lb-PM/lb-PM}_{10} \times 7,000 \text{ gr/lb}) \\ & \quad / (1,000 \text{ dscfm} \times 960 \text{ min/day}) \\ & \quad = 0.0102 \text{ gr/dscf} \end{aligned}$$

Therefore, it can be assumed, that under dry conditions, the particulate matter emissions from the dust collector will not exceed the maximum allowable value of 0.1 grains/dscf and all of the requirements of this rule will be met.

C-4261-33 (flaked grain truck loadout operation):

The test methods in section 4.0 require that the operation have an exhaust stack with an established exhaust velocity in order to get valid results. The proposed flaked grain truck loadout operation loads flaked grain out through a flexible loadout spout. The PM<sub>10</sub> emissions from this operation are not released to the atmosphere through an exhaust stack. As the operation does not have an exhaust stack, compliance with the requirements of this rule cannot be shown. Therefore, the requirements of this rule are not applicable to this operation and no further discussion is required.

C-4261-34 and -35 (hammermilling operations):

As long as the equipment is properly maintained and operated it is expected that the particulate matter concentration will be:

$$\text{PM Concentration (gr/dscf)} = \text{PM Emissions (gr/day)} / (\text{Exhaust Flow (scfm)} \times \text{Operation (min/day)})$$

The applicant states that the exhaust flow rate is 5,000 dscfm at ambient air temperature (from application review performed for project C-1061750). As a worst

case it will be assumed that 100% of the PM emitted is PM<sub>10</sub> (AP-42 for hammermills served by a baghouse). As a conservative estimate, it will be assumed that the baghouse would need to be in operation 12 hours per day. Therefore, the particulate matter emission concentration at ambient temperature is:

$$\begin{aligned} \text{PM Concentration (gr/dscf): } & (38.1 \text{ lb-PM}_{10}/\text{day} \times 1.0 \text{ lb-PM/lb-PM}_{10} \times 7,000 \\ & \text{gr/lb}) / (5,000 \text{ dscfm} \times 720 \text{ min/day}) \\ & = 0.074 \text{ gr/dscf} \end{aligned}$$

Therefore, it can be assumed, that under dry conditions, the particulate matter emissions from the dust collector will not exceed the maximum allowable value of 0.1 grains/dscf and all of the requirements of this rule will be met. The following condition ensures continued compliance with the requirements of this rule:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

C-4261-38, '-39, and '-40 (processes served by the RTO):

The only PM<sub>10</sub> emissions from these operations is from the combustion of natural gas in the RTO. Therefore:

<i>F-Factor for NG:</i>	<i>8,578 dscf/MMBtu at 60 °F</i>
<i>PM<sub>10</sub> Emission Factor:</i>	<i>0.0076 lb-PM<sub>10</sub>/MMBtu</i>
<i>Percentage of PM as PM<sub>10</sub> in Exhaust:</i>	<i>100%</i>
<i>Exhaust Oxygen (O<sub>2</sub>) Concentration:</i>	<i>3%</i>

$$\text{Excess Air Correction to F Factor} = \frac{20.9}{(20.9 - 3)} = 1.17$$

$$GL = \left( \frac{0.0076 \text{ lb - PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb - PM}} \right) / \left( \frac{8,578 \text{ dscf}}{\text{MMBtu}} \times 1.17 \right)$$

Therefore, for each permit unit:

$$GL = 0.0053 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

Therefore, compliance with District Rule 4201 requirements is expected.

C-4261-53 (265 hp emergency IC engine):

Particulate matter emissions from the engine will be less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions as shown by the following:



$$0.07 \frac{g - PM_{10}}{bhp - hr} \times \frac{1 g - PM}{0.96 g - PM_{10}} \times \frac{1 bhp - hr}{2,542.5 Btu} \times \frac{10^6 Btu}{9,051 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.017 \frac{grain - PM}{dscf}$$

Since 0.017 grain-PM/dscf is  $\leq$  to 0.1 grain per dscf, compliance with Rule 4201 is expected.

C-4261-54 (cooling tower):

As long as the equipment is properly maintained and operated it is expected that the particulate matter concentration will be:

$$PM \text{ Concentration (gr/dscf)} = PM \text{ Emissions (gr/day)} / (\text{Exhaust Flow (scfm)} \times \text{Operation (min/day)})$$

The applicant states that the exhaust flow rate is 159,000 ascfm at ambient air temperature. Pursuant to information in the facility files, the air leaving a cooling tower should contain approximately 20% moisture. Therefore, the dry exhaust flow rate can be determined as follows:

$$\text{Dry Exhaust Flow Rate} = \text{Actual Exhaust Flow Rate (ascfm)} \times [(100\% - 20\%) / 100\%]$$

$$\text{Dry Exhaust Flow Rate} = 159,000 \text{ ascfm} \times 0.8$$

$$\text{Dry Exhaust Flow Rate} = 127,200 \text{ dscfm}$$

As a worst case it will be assumed that 50% of the PM emitted is PM<sub>10</sub>. As a conservative estimate, it will be assumed that the cooling tower would need to be in operation 24 hours per day. Therefore, the particulate matter emission concentration at ambient temperature is:

$$\begin{aligned} PM \text{ Concentration (gr/dscf): } & (8.6 \text{ lb-PM}_{10}/\text{day} \times 2.0 \text{ lb-PM}/\text{lb-PM}_{10} \times 7,000 \text{ gr}/\text{lb}) \\ & / (127,200 \text{ dscfm} \times 1,440 \text{ min}/\text{day}) \\ & = 0.00066 \text{ gr}/\text{dscf} \end{aligned}$$

Therefore, it can be assumed, that under dry conditions, the particulate matter emissions from the cooling tower will not exceed the maximum allowable value of 0.1 grains/dscf and all of the requirements of this rule will be met.

C-4261-57 (hammermilling operations):

As long as the equipment is properly maintained and operated it is expected that the particulate matter concentration will be:

$$\text{PM Concentration (gr/dscf)} = \text{PM Emissions (gr/day)} / (\text{Exhaust Flow (scfm)} \times \text{Operation (min/day)})$$

The applicant states that the exhaust flow rate is 5,000 dscfm at ambient air temperature (from application review performed for project C-1061750). As a worst case it will be assumed that 100% of the PM emitted is PM<sub>10</sub> (AP-42 for hammermills served by a baghouse). As a conservative estimate, it will be assumed that the baghouse would need to be in operation 12 hours per day. Therefore, the particulate matter emission concentration at ambient temperature is:

$$\begin{aligned} \text{PM Concentration (gr/dscf): } & (38.1 \text{ lb-PM}_{10}/\text{day} \times 1.0 \text{ lb-PM}/\text{lb-PM}_{10} \times 7,000 \\ & \text{gr/lb}) / (5,000 \text{ dscfm} \times 720 \text{ min/day}) \\ & = 0.074 \text{ gr/dscf} \end{aligned}$$

Therefore, it can be assumed, that under dry conditions, the particulate matter emissions from the dust collector will not exceed the maximum allowable value of 0.1 grains/dscf and all of the requirements of this rule will be met. The following condition ensures continued compliance with the requirements of this rule:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

C-4261-58-0 (powder lime pneumatic receiving and storage operation)

This rule prohibits the discharge of emissions in excess of the limit found by the following equation:

$$E = 17.31 \times P^{0.16}$$

Where E is the emission rate limit in lb/hr, and P is the process weight rate in tons/hour (for processes with a throughput rate of greater than 30 tons/hr).

$$E = 17.31 \times 32^{(0.16)}$$

$$E = 30.14 \text{ lb PM/hour or } 15.1 \text{ lb PM}_{10}/\text{hour}$$

Since daily emissions are less than 0.5 lb PM<sub>10</sub>, compliance with this rule is expected.

**Conclusion:**

Therefore, compliance with District Rule 4201 requirements is expected. The following condition will be included on each PTO, except for C-4261-33, to ensure continued compliance with the requirements of this rule:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

**District Rule 4202, Particulate Matter Emission Rate**

Per section 4.1, particulate matter (PM) emissions from any source operation shall not exceed the allowable hourly emission rate (E) as calculated using the following applicable formulas:

$$E_{\text{allowable}} = 3.59 P^{0.62} \text{ (when, } P = \text{ process weight rate } \leq 30 \text{ tons/hr)}$$

$$E_{\text{allowable}} = 17.31 P^{0.16} \text{ (when, } P = \text{ process weight rate } > 30 \text{ tons/hr)}$$

Where:

- E = Emission in lb/hr
- P = Process weight in tons/hr

As shown above, this operation can process up to 1,000 tons of product during any given day. Assuming that this facility has the potential to operate for 24 hours/day, the maximum hourly process throughput rate is 24 tons/hour (1,000 ton/day / 24 hours/day = 41.7 tons/hour). The following table compares the maximum allowable PM emissions to the actual PM emissions (assuming 100% of PM is PM<sub>10</sub>) from this operation.

Permit Unit	Process Throughput (ton/day)	E <sub>allowable</sub> (lb-PM/hr)	E <sub>actual</sub> (lb-PM/hr)
C-4261-34	1,000	31.44	0.53
C-4261-35	1,000	31.44	0.53
C-4261-57	1,000	31.44	0.53

Since the maximum allowable PM emission rate is greater than the actual PM emission rate for each permit unit; compliance with this rule is expected under regular operating conditions.

**District Rule 4301, Fuel Burning Equipment**

This rule specifies maximum emission rates, in lb/hr, for SO<sub>2</sub>, NO<sub>2</sub>, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 grains/dscf.

Permits	NO <sub>2</sub> (lb/hr)	Total PM (lb/hr)	SO <sub>2</sub> (lb/hr)
Units C-4261-39 and '-40 served by the RTO and catalytic oxidizer	0.125	0.019	0.007
Rule Limit (lb/hr)	140	10	200

The above table indicates compliance with the maximum lb/hr emissions required by this rule. As shown in Section VIII, District Rule 4201 above, each of these permit units also have a maximum PM<sub>10</sub> concentration of less than 0.1 grain/dscf. Therefore, compliance with the requirements of this rule is expected.

**District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants**

The purpose of District Rule 4455 is to limit VOC emissions from leaking components at petroleum refineries, gas liquids processing facilities, and chemical plants.

Pacific Ethanol Madera is not a petroleum refinery or a gas liquids processing facility. Pursuant Section 3.4, a chemical plant is defined as an establishment that produces organic chemicals and/or manufactures products by organic chemical processes. Pacific Ethanol Madera produces ethanol by the fermentation of grain, which can be considered an organic chemical process. Therefore, Pacific Ethanol Madera meets the definition of a chemical plant and is subject to the requirements of this rule.

Per Section 2.0, this rule shall apply to components containing or contacting VOC at petroleum refineries, gas liquids processing facilities, and chemical plants. For this ethanol production facility, this rule applies to all of the equipment or piping systems that contains or come in contact with, VOC's. It will be assumed that all or part of the following processes have components containing or contacting VOC's during the ethanol production process.

- C-4261-38: Liquefaction Tank
- C-4261-39: Fermentation Process with Four Fermentation Tanks
- C-4261-40: Beerwell Tank
- C-4261-41: Distillation Process
- C-4261-42: Process Condensate Tank
- C-4261-43: Wet Cake Process

Therefore, the requirements of District Rule 4455 will be applicable to those components associated with these processes.

Pacific Ethanol Madera has a maximum leak limit of 100 ppmv above background for valves and connectors and 500 ppmv above background for pumps and compressors when measured at a distance of one (1) cm from the potential source.

Section 5.0 sets forth the operating requirements for components that are not specifically exempted from the requirements of this rule in accordance with Sections 4.1 and 4.2. The following condition ensures continued compliance with the requirements of Section 5.1:

- The operator shall meet operating, inspection and re-inspection, maintenance, process pressure relief device (PRD) and component identification requirements of District Rule 4455 (4/20/05) for all components containing or contacting VOC, except for those components specifically exempted in Sections 4.1 and 4.2. [District Rule 4455, 5.0]

Section 5.1 requires that a facility operator shall not use any component that leaks in excess of the applicable leak standards of this rule. A leaking component can be put back into service if it has been identified with a tag for repair, is repaired, or is awaiting re-inspection after being repaired in a timely manner.

Section 5.1.2 applies directly to operation of hatches.

Sections 5.1.3 identifies how to determine compliance with leak standards of the rule.

Section 5.1.4 provides leak standards for all applicable components.

The following conditions ensure continued compliance with the requirements of Section 5.1:

- The operator shall not use any component that leaks in excess of the allowable leak standards, except as follows. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1]
- Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2]
- A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4 and 40 CFR 60.482-4(a)]

Section 5.2 requires equipment to be inspected and re-inspected for leak detection and leaking equipment identification. The following conditions ensure continued compliance with the requirements of Section 5.2:

- The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as

practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2; 40 CFR 60.482-2(a), (b) and (c); 40 CFR 60.482-7(d) and (e)]

- The operator shall inspect all components at least once every calendar quarter. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5 through 5.2.7. Components shall be inspected using EPA Method 21. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7; 40 CFR 60.482-2(a), (b) and (g); 40 CFR 60.482-7(a), (b), (g) and (h)]
- The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8; 40 CFR 60.482-7]
- An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 and 5.2.10]
- The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11 and 40 CFR 60.482-4(b)]
- Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12]

Section 5.3 requires leaking equipment to be tagged and requires repair or replacement upon a schedule based on the leak rate. The following conditions ensure continued compliance with the requirements of Section 5.3:

- Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected using EPA Method 21; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1 & 5.3.2; 40 CFR 60.486(b)]
- The tag shall include date and time of leak detection, date and time of leak measurement, indicate the leak concentration in ppmv (gas leaks), indicate whether it is a major or a minor leak (liquid leaks) and whether the leaking component is an essential component, unsafe-to-monitor component or critical component. [District Rule 4455, 5.3.3]
- All component leaks shall be immediately minimized to the extent possible, but not later than one (1) hour after detection of leaks, in order to stop or reduce leakage to the atmosphere. As soon as practicable but not later than the time period specified in Table 3 of the rule, components that have been identified as leaking and have had emissions minimized to the extent possible but do not meet the applicable leak standards of the rule shall either be: 1) repaired or replaced, or 2) vented to a closed vent system, or 3) removed from operation. [District Rule 4455, 5.3.5]
- For any leaking component that is an essential or critical component, and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized but still exceeds any of the applicable leak standards of this rule, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6]
- For any component that has incurred five repair actions for major gas leaks or major liquid leaks (any combination) within a continuous 12-month period, the operator shall as soon as practicable but not later than 12 after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of the rule, or 2) replace the component with Best Available Control Technology (BACT) equipment, as approved by the APCO, or 3) vent the component to an APCO approved closed vent system as defined in Section 3.0 of the rule, or 4) remove the component from operation. Inaccessible components, unsafe-to-monitor components, essential components, or critical components shall satisfy the above-listed requirement as soon as practicable but not later than the next turnaround or not later than two (2) years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes earlier. The APCO shall be notified in writing prior to the replacement or retrofitting of any component. [District Rule 4455, 5.3.7]

Section 5.4 provides specific performance requirements for process pressure relief devices. The following conditions ensure continued compliance with the requirements of Section 5.4:

- The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1]
- The operator shall comply with the process PRD release notification and record keeping requirements specified in Section 6.3 of the rule. After a release from process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. [District Rule 4455, 5.4.3 & 5.4.4]

Section 5.5 requires clear and visible physical identification of major and critical components. The following ensure continued compliance with the requirements of Section 5.5:

- All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and record keeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other APCO-approved system that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4455, 5.5]

Section 6 details the administrative and record keeping requirements, including the operation management plan, inspection log, process pressure lease device release notification, and test methods.

The operator management plan (OMP) required by section 6.1 must be submitted to the District for review. The District must respond with written notice of approval or incompleteness within 60 days of receiving the plan.

This facility is already in operation and has submitted their OMP in accordance with the requirements of this rule.

The following conditions ensure continued compliance with the requirements of Section 6 of this rule:

- The operator shall keep a copy of the OMP at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved Operator Management Plan. [District Rule 4455, 6.1.2]



- Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of the rule. [District Rule 4455, 6.2.1; 40 CFR 60.486(c)]
- The operator shall notify the APCO, by telephone or other APCO-approved methods, of any process PRD release in excess of 500 pounds of VOC in a continuous 24-hour period, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. The operator shall submit a written report to the APCO within thirty (30) calendar days of following notification of process PRD release subject to 6.3.1 of the rule. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of the rule. [District Rule 4455, 6.3]
- Measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument, calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. Operator shall keep a record of each instrument calibration in accordance with requirements as set forth Section 6.2.3 of the rule. [District Rule 4455, 6.4; 40 CFR 60.485(b)]
- All records and logs shall be retained and be maintained for a minimum of 5 years and shall be made available to the APCO, ARB and US EPA upon request. [District Rule 4455, 6.2]

**District Rule 4621, Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants**

**C-4261-48 (gasoline storage tank):**

Per Section 2.0, this rule applies to gasoline delivery vessels, tanks with a storage capacity greater than 250 gallons but not exceeding 19,800 gallons located at gasoline bulk plants, and other stationary gasoline storage tanks with capacity greater than 250 gallons except for tanks subject to the requirements of Rule 4623 (Storage of Organic Liquids) Sections 5.1 to 5.3.

Pacific Ethanol Madera receives and stores gasoline in one 39,000 gallon storage tank at this location. As discussed below, this 39,000 gallon gasoline storage tank is subject to the requirements of District Rule 4623, Sections 5.1 to 5.3. Therefore, the requirements of this rule are not applicable and no further discussion is required.

### **District Rule 4623, Storage of Organic Liquids**

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids.

Per Section 2.0, this rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

All of the process tanks operated Pacific Ethanol Madera hold, store or have organic liquid placed in them at some point during the ethanol production process. Therefore, the requirements of this rule are applicable to the following processes:

- C-4261-38: Liquefaction Tank
- C-4261-39: Fermentation Process with Four Fermentation Tanks
- C-4261-40: Beerwell Tank
- C-4261-42: Process Condensate Tank
- C-4261-43: Wet Cake Process (3 tanks)

#### **C-4261-38, '-39, '-40 and 41 (ethanol production process tanks):**

Pursuant to information provided by Phoenix Bio Industries, a similar ethanol production plant, under project S-1062253, the True Vapor Pressure (TVP) of the organic liquids processed through these tanks is greater than 0.5 psia. Therefore, these fixed roof process tanks are subject to the requirements of this rule.

### **Section 5.1, Requirements: VOC Control System Requirements**

District Rule 4623 Section 5.1 requires that, except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

District Rule 4623 Section 5.1.1 identifies VOC control systems required for organic liquids storage tanks.

Tank Design Capacity (TDC) (gallon)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 < TVP (psia) <1.5	1.5 < TVP (psia) <11	11 < TVP (psia)
1,100 ≤ TDC ≤ 19,800	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
19,800 < TDC ≤ 39,600	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
39,600 < TDC	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System

Pacific Ethanol Madera is proposing to vent each of these fixed roof organic liquid process tanks to a control device with a minimum control efficiency of 95% for VOC emissions. Therefore, each tank meets the VOC control system requirements of this section.

**Section 5.6, Specifications for Vapor Recovery Systems**

Pursuant to Section 5.6.1, fixed roof tanks shall be fully enclosed and shall be maintained in a leak-free condition. Leak-free is defined as no leaks in excess of 10,000 ppmv VOC. Pacific Ethanol Madera has no leaks greater than 500 ppm for any components associated with this facility. An APCO-approved vapor recovery system shall consist of a closed vent system that collects all VOC's from the storage tanks and VOC control device. The VOC control device shall be a VOC destruction device that reduces the inlet VOC emissions by at least 95 percent by weight as determined by the test method specified in Section 6.4.7 and the following permit condition to comply with requirements of Section 5.6.1, will be listed on each permit as follows:

- Tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]<sup>2</sup>

Pursuant to Section 5.6.2, any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling and the following permit condition to comply with requirements of Section 5.6.1, will be listed on each permit as follows:

- Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]

Pursuant to Section 5.6.3, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition and the following permit condition to comply with requirements of Section 5.6.1, will be listed on each permit as follows:

- Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]

### **Section 6.2, Administrative Requirements: TVP and API Gravity Testing of Stored Organic Liquid in Uncontrolled Fixed Roof Tanks**

The tanks are controlled fixed roof tanks. Therefore, requirements of Section 6.2 do not apply to tanks with vapor control.

### **Section 6.3, Administrative Requirements: Recordkeeping**

Pursuant to Section 6.3.1, an operator whose tanks are subject to the requirements of this rule shall keep an accurate record of each organic liquid stored in each tank, including its storage temperature, TVP, and API gravity. However, this requirement shall not apply to fixed tanks equipped with a vapor recovery system that meet the requirements of this rule.

Therefore, no records need to be kept for the fixed roof process tanks.

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<sup>2</sup> To avoid confusion with the more stringent BACT VOC control requirement, the 95% VOC control efficiency requirement will not be included in the condition.

C-4261-45, '-46, '-47 and '-48 (internal floating roof storage tanks):

**Section 5.1, Requirements: VOC Control System Requirements**

District Rule 4623 Section 5.1 requires that, except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

District Rule 4623 Section 5.1.1 identifies VOC control systems required for organic liquids storage tanks.

Tank Design Capacity (TDC) (gallon)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 < TVP (psia) <1.5	1.5 < TVP (psia) <11	11 < TVP (psia)
1,100 ≤ TDC ≤ 19,800	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
19,800 < TDC ≤ 39,600	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
39,600 < TDC	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System

Pacific Ethanol Madera is proposing to operate each of these organic liquid storage tanks with an internal floating roof and is not proposing to store organic liquids with a TVP greater than 11 psia. Therefore, each new tank meets the VOC control system requirements of this section.

#### **Section 5.4, Requirements: Specifications for Internal Floating Roof Tanks**

Pursuant to Section 5.4.1, internal floating roof tanks shall be equipped with seals that meet the criteria set forth in Section 5.3 (Specifications for External Floating Roof Tanks), except for complying with the requirement specified in Section 5.3.2.1.3. For internal floating roofs, the metallic-shoe type seals shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface.

Each internal floating roof tank is equipped with an Ultraflote Model Dual Ultraseal seal (double seal type).

Section 5.4.2 indicates that, when installed and maintained to meet the gap criteria for primary and secondary seals set forth in Sections 5.3.2.1 through 5.3.2.3, the Ultraflote Model Dual Ultraseal has been found to be equivalent to seals meeting the criteria set forth in Section 5.3 (Specifications for External Floating Roof Tanks).

Therefore, the specific applicable requirements for the Ultraflote Model Dual Ultraseal seal will be discussed in Section 5.3.2.1 (Welded Tanks with Primary Metallic-Shoe Type Seal), and the following permit condition to comply with requirements of Section 5.4.1, will be listed on each permit as follows:

- This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rules 2201 and 4623]

#### **Section 5.3, Requirements: Specifications for External Floating Roof Tanks**

Pursuant to Section 5.3.1.3, effective on and after December 20, 2001, the floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Whenever the operator intends to land the roof on its legs, an operator shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land on its legs. The required information to be included in the written notification as well as the recordkeeping requirements is specified in Section 6.3.7.

- The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly

as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]

Pursuant to Section 5.3.2.1.1, no gap between the tank shell and the primary seal shall exceed one and one half (1-1/2) inches. The cumulative length of all gaps between the tank shell and the primary seal greater than one-half (1/2) inch shall not exceed ten (10) percent of the circumference of the tank. The cumulative length of all primary seal gaps greater than one-eighth (1/8) inch shall not exceed 30 percent of the tank circumference. No continuous gap greater than one eighth (1/8) inch shall exceed ten (10) percent of the tank circumference.

The following permit conditions will be listed on each permit as follows:

- Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
- The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]
- The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
- No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]

Pursuant to Section 5.3.2.1.2, no gap between the tank shell and the secondary seal shall exceed one-half (1/2) inch. The cumulative length of all gaps between the tank shell and the secondary seal, greater than one-eighth (1/8) inch shall not exceed five (5) percent of the tank circumference.

The following permit conditions will be listed on each permit as follows:

- No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
- The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]

Pursuant to Section 5.3.2.1.3, the metallic-shoe-type seals shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. But as discussed in Section 5.4.1, for internal floating roof, the metallic-shoe type seals shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface.

Therefore, since the applicant proposed to install on each internal floating roof tank an Ultraflote model Dual Ultraseal seal system, the following permit condition will be listed on each permit as follows:

- The Ultraflote Model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]

Pursuant to Section 5.3.2.1.4, the geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell is no greater than double the gap allowed by the seal gap criteria specified in Section 5.3.2.1.1 for a length of at least 18 inches in the vertical plane above the liquid surface.

Since the applicant proposed to install on each internal floating roof tank a Ultraflote model Dual Ultraseal seal system, the following permit condition ensures compliance:

- The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]

Pursuant to Section 5.3.2.1.5, there shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal.

The following permit condition ensures compliance:

- There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]

Pursuant to Section 5.3.2.1.6, the secondary seal shall allow easy insertion of probes up to one and one-half (1-1/2) inches in width in order to measure gaps in the primary seal.

The following permit condition ensures compliance:

- The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]

Pursuant to Section 5.3.2.1.7, the secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal.



The following permit condition ensures compliance:

- The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]

### **Section 5.5, Requirements: Floating Roof Deck Fitting Requirements**

Pursuant to Section 5.5.1, all openings in the roof used for sampling or gauging, except pressure-vacuum valves which shall be set to within ten (10) percent of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps and be gastight, except when the device or appurtenance is in use.

The following permit condition ensures compliance:

- All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]

Definition of a gas-tight condition and a gas leak are specified in Section 3.10 and 3.9 as follows:

- Section 3.9: Gas Leak: a reading in excess of 10,000 ppmv, above background, on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the test method in Section 6.4.8.
- Section 3.10 Gas-Tight: a condition without a gas leak (defined in Section 3.9).

However as discussed in the BACT section of this evaluation (District Rule 2201), leaks will be defined as a reading in excess of 100 ppm for valves and connectors or 500 ppmv for pumps and compressor seals.

The following permit condition ensures compliance:

- A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or

500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623]

Since the proposed tanks are internal floating roof tank type, requirements from Section 5.5.2.1 are applicable to the proposed internal floating roof tanks.

Pursuant to Section 5.5.2.1.1, each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface.

The following permit condition ensures compliance:

- Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)]

Pursuant to Section 5.5.2.1.2, each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e., no visible gap) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use.

The following permit condition ensures compliance:

- Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)]

Pursuant to Section 5.5.2.1.3, automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports.

The following permit condition ensures compliance:

- Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)]

Pursuant to Section 5.5.2.1.4, rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

The following permit condition ensures compliance:

- Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)]

Pursuant to Section 5.5.2.1.5, each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable.

The following permit condition ensures compliance:

- Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)]

Pursuant to Section 5.5.2.1.6, each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable.

The following permit condition ensures compliance:

- Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)]

### **Section 6.1, Administrative Requirements: Inspection of Floating Roof Tanks**

Pursuant to Section 6.1.4.1, for newly constructed, repaired, or rebuilt internal floating roof tanks, visually inspect the internal floating roof and its appurtenant parts, fittings, etc., and measure the gaps of the primary seal and/or secondary seal prior to filling the tank. 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

its appurtenant parts, components, fittings, etc., the operator shall repair the defects before filling the tank.

The following permit condition ensures compliance:

- The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)]

Pursuant to Section 6.1.4.2, visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule.

The following permit condition ensures compliance:

- The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)]

Pursuant to Section 6.1.4.3, conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months.

The following permit condition ensures compliance:

- The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]

## **Section 6.2, Administrative Requirements: TVP and API Gravity Testing of Stored Organic Liquid in Uncontrolled Fixed Roof Tanks**

Since the proposed tanks are internal floating roof tanks, the requirements of Section 6.2 do not apply and no further discussion is required.

### **Section 6.3, Administrative Requirements: Recordkeeping**

Pursuant to Section 6.3.1, an operator whose tanks are subject to the requirements of this rule shall keep an accurate record of each organic liquid stored in each tank, including its storage temperature, TVP, and API gravity.

The following permit condition ensures compliance:

- Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)]

Pursuant to Section 6.3.5, an operator shall submit the reports of the floating roof tank inspections conducted in accordance with the requirements of Section 6.1 to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and shall be made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule.

The following permit condition ensures compliance:

- The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]

Pursuant to Section 6.3.7, an operator shall maintain the records of the external floating roof or internal floating roof landing activities that are performed pursuant to Sections 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. The operator shall keep the records at the facility (or on-site) for a period of five years. The records shall be made available to the APCO upon request. The following permit condition ensures compliance:

- Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
- All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4623]

### **District Rule 4701, Internal Combustion Engines – Phase 1**

#### **C-4261-53 (265 hp emergency IC engine):**

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine, rated greater than 50 bhp, that requires a Permit to Operate (PTO).

There is one diesel-fired IC engine involved with this project. Pursuant to Section 2.0 of District Rule 4701, this engine is subject to District Rule 4701 - *Internal Combustion Engines – Phase 1*. In addition, the engine is also subject to District Rule 4702 - *Internal Combustion Engines – Phase 2*.

Since the emissions limits of District Rule 4702 and all other requirements are equivalent or more stringent than District Rule 4701 requirements, compliance with 4702 rule requirements will satisfy requirements of District Rule 4701.

Therefore, the IC engine complies with District Rule 4701 requirements and no further discussion is required.

**District Rule 4702, Internal Combustion Engines – Phase 2**

**C-4261-53 (265 hp emergency IC engine):**

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.

This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.

Pursuant to Section 4.3, except for the requirements of Section 6.2.3, the requirements of this rule shall not apply to an internal combustion engine that meets the following conditions:

- 1) The engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood, and
- 2) Except for operations associated with Section 4.3.1.1, the engine is limited to operate no more than 100 hours per calendar year as determined by an operational nonresettable elapsed operating time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine, and
- 3) The engine is operated with a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Therefore, the emergency IC engine involved with this project will only have to meet the requirements of Section 6.2.3 of this Rule.

Section 6.2.3 requires that an owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and submitted to the APCO upon request and at the end of each calendar year in a manner and form approved by the APCO. Therefore, the following conditions ensure continued compliance with the requirements of this rule:

- This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association

(NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4701 and 4702, and 17 CCR 93115]

- The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702, and 17 CCR 93115]
- This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII]
- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702, and 17 CCR 93115]

In addition, the following condition ensures continued compliance with the requirements of this rule:

- This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115 and 40 CFR 60 Subpart IIII]

#### **District Rule 4801, Sulfur Compounds**

##### C-4261-38, '-39, '-40 (processes containing natural gas combustion):

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO<sub>2</sub>, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{n RT}{P}$$

With:

N = moles SO<sub>2</sub>

T (Standard Temperature) = 60°F = 520°R



P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) =  $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}$

EPA F-Factor for Natural Gas: 8,710 dscf/MMBtu at 68 °F, equivalent to

$$\text{Corrected } F - \text{factor} = \left( \frac{8,710 \text{ dscf}}{\text{MMBtu}} \right) \times \left( \frac{60^\circ \text{F} + 459.6}{68^\circ \text{F} + 459.6} \right) = 8,578 \frac{\text{dscf}}{\text{MMBtu}} \text{ at } 60^\circ \text{F}$$

$$\frac{0.00285 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ \text{R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.97 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 1.97 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)},$$

Therefore compliance with District Rule 4801 requirements is expected.

C-4261-53 (265 hp emergency IC engine):

$$\frac{0.000015 \text{ lb} - \text{S}}{\text{lb} - \text{fuel}} \times \frac{7.1 \text{ lb}}{\text{gal}} \times \frac{64 \text{ lb} - \text{SO}_2}{32 \text{ lb} - \text{S}} \times \frac{1 \text{ MMBtu}}{9,051 \text{ scf}} \times \frac{1 \text{ gal}}{0.137 \text{ MMBtu}} \times \frac{\text{lb} - \text{mol}}{64 \text{ lb} - \text{SO}_2} \times \frac{10.73 \text{ psi} - \text{ft}^3}{\text{lb} - \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ \text{R}}{14.7 \text{ psi}} \times 1,000,000 = 1.0 \text{ ppmv}$$

Since 34.0 or 1.0 ppmv is  $\leq 2,000$  ppmv, this engine is expected to comply with Rule 4801. Therefore, the following ensures continued compliance with the requirements of this rule:

- Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115 and 40 CFR 60 Subpart III]

**District Rule 7012, Hexavalent Chromium – Cooling Towers**

C-4261-54 (cooling tower):

Per Section 4.1.2, cooling towers shall be exempt from the provisions of this rule except for Sections 5.2.1, 6.1 and 7.1 if they meet one of the following:

- hexavalent chromium concentration levels less than 0.15 mg/l as determined by Section 6.3.1; or
- never had hexavalent chromium containing compounds added.

Permit unit C-4261-54-1 is an existing cooling tower, however, the facility does not operate with chromium-based water treatment chemicals.

Section 5.2.1 requires that no hexavalent chromium compounds be added after 9/16/91 (intended to apply to cooling towers that previously used hexavalent chromium). As stated above, Pacific Ethanol Madera does not operate with any hexavalent chromium containing compounds in this cooling tower.

Condition 4 of permit unit C-4261-54 ensures continued compliance with the requirements of this rule:

- No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]

Therefore, compliance with the requirements of this rule is expected.

**40 CFR Part 64, Compliance Assurance Monitoring (CAM)**

This section requires Compliance Assurance Monitoring (CAM) for units that meet the following criteria:

1. The facility must be a major source for a specific pollutant
2. The unit must have an emission limit for the pollutant;
3. The unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers;
4. The unit must have a pre-control potential to emit of greater than the major source thresholds

Pollutant	Major Source Threshold (lb/year)
VOC	20,000
NO <sub>x</sub>	20,000
CO	200,000
PM <sub>10</sub>	140,000
SO <sub>x</sub>	140,000

This facility is a Major Source for VOC emissions. Therefore, CAM is being evaluated for each pollutant.

**C-4261-29 (grain receiving and storage operation):**

1. The permit unit has emission limits for PM10.
2. The permit unit has an add-on control for PM10.
3. This permit unit may be subject to CAM for PM10 since there is a PM10 limit and has an add-on control in the form of a bin vent filter. Based on the pre-controlled annual emissions (shown below), the major source threshold of 140,000 lb-PM10/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

This permit unit limits the PM<sub>10</sub> throughput to 432,000 ton/year from the grain receiving and handling operation served by bin vent filters and a baghouse.

The following uncontrolled PM<sub>10</sub> emission factor for the receiving of the grain from trucks or railcars was taken from AP-42, Table 9.9.1-2, grain receiving – animal feed mills (3/03).

Uncontrolled PM<sub>10</sub> EF = 0.0025 lb/ton

Uncontrolled PM<sub>10</sub> EF = (0.0025 lb-PM<sub>10</sub>/ton) x (432,000 ton-grain/yr)

**Uncontrolled PM<sub>10</sub> EF = 1,080 lb-PM10/year**

**C-4261-30 (grain flaking operation):**

**Grain Transfer:**

1. The permit unit has emission limits for PM10.
2. The permit unit has an add-on control for PM10.
3. This permit unit may be subject to CAM for PM10 since there is a PM10 limit and has an add-on control in the form of a dust separator system. Based on the pre-controlled annual emissions (shown below), the major source threshold of 140,000 lb-PM10/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

This permit unit limits the PM<sub>10</sub> throughput to 600,000 ton/year from the grain receiving and handling operation served by bin vent filters and a baghouse (dust separator system).

The following *uncontrolled* PM<sub>10</sub> emission factor for the transferring of the grain from the storage silos/day bins to the flaking equipment was taken from AP-42, Table 9.9.1-1, Headhouse and grain handling (3/03).

Uncontrolled PM<sub>10</sub> EF = 0.034 lb/ton

Annual PM<sub>10</sub> PE (lb/day) = EF (lb/ton) x Throughput (ton/year)

Annual PM<sub>10</sub> PE (lb/day) = 0.034 lb/ton lb/ton x 600,000 ton/year

**Annual PM<sub>10</sub> PE = 20,400 lb/year**

**C-4261-32 (flaked grain storage operation):**

1. The permit unit has emission limits for PM10.
2. The permit unit has an add-on control for PM10.
3. This permit unit may be subject to CAM for PM10 since there is a PM10 limit and has an add-on control in the form of a bin vent filter. Based on the pre-controlled annual emissions (shown below), the major source thresholds of 140,000 lb-PM10/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The applicant did not propose to place an annual throughput limit on this flaked grain storage operation. Therefore, the annual emissions will be based on a worst case operating schedule of 365 days per year.

Uncontrolled PM<sub>10</sub> EF = 0.034 lb/ton

Daily PM<sub>10</sub> PE (lb/day) = EF (lb/ton) x Throughput (ton/day)

Daily PM<sub>10</sub> PE (lb/day) = 0.034 lb/ton x 2,160 ton/day = 73.44 lb-PM10/day

Annual PM<sub>10</sub> PE (lb/day) = Daily PE (lb/day) x Operation (day/year)

Annual PM<sub>10</sub> PE (lb/day) = 73.44 lb-PM10/day x 365 day/year

**Annual PM<sub>10</sub> PE = 26,806 lb/year**

**C-4261-33 (grain truck loadout operation):**

1. The permit unit has emission limits for PM10.
2. The permit unit has an add-on control for PM10.
3. This permit unit may be subject to CAM for PM10 since there is a PM10 limit and has an add-on control in the form of a bin vent filter and baghouse. Based on the pre-controlled annual emissions (shown below), the major source thresholds of 140,000 lb-PM10/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The daily PE from the receiving and storage of the grain can be calculated using the total emission factor and process throughput listed below.

Uncontrolled PM<sub>10</sub> EF = 0.034 lb/ton

Daily PM<sub>10</sub> PE (lb/day) = EF (lb/ton) x Throughput (ton/day)

Daily PM<sub>10</sub> PE (lb/day) = 0.034 lb/ton x 2,000 ton/day

Daily PM<sub>10</sub> PE = 68 lb/day

The applicant did not propose to place an annual throughput limit on this flaked grain storage operation. Therefore, the annual PE will be based on a worst case operating schedule of 365 days per year.

Annual PM<sub>10</sub> PE (lb/day) = Daily PE (lb/day) x Operation (day/year)

Annual PM<sub>10</sub> PE (lb/day) = 68 lb/day x 365 day/year

**Annual PM<sub>10</sub> PE = 24,820 lb/year**

**C-4261-34 and C-4261-35 (hammermilling operations):**

1. The permit unit has emission limits for PM<sub>10</sub>.
2. The permit unit has an add-on control for PM<sub>10</sub>.
3. This permit unit may be subject to CAM for PM<sub>10</sub> since there is a PM<sub>10</sub> limit and has an add-on control in the form of a bin vent filter and baghouse. Based on the pre-controlled annual emissions (shown below), the major source threshold of 140,000 lb-PM<sub>10</sub>/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The daily and annual PE's from the hammermilling of the grain can be calculated using the total emission factor and process throughput listed below.

Uncontrolled PM<sub>10</sub> EF = 0.034 lb/ton

Annual PM<sub>10</sub> PE (lb/day) = EF (lb/ton) x Throughput (ton/year)

Annual PM<sub>10</sub> PE (lb/day) = 0.034 lb/ton x 216,000 ton/year

**Annual PM<sub>10</sub> PE = 7,344 lb/year**

**C-4261-38, '-41, '-42 and '-43 (processes served by the distillation scrubber):**

1. The permit unit has emission limits for VOC.
2. The permit unit has an add-on control for VOC.
3. This permit unit may be subject to CAM for VOC since there is a VOC limit and has an add-on control in the form of a wet scrubber. Based on the pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-VOC/yr has been exceeded. Therefore, the requirements of CAM are triggered.

Each of these units is served by the distillation wet scrubber. As a worst case, it will be assumed that the emissions from the scrubber exhaust could be generated by any one of these units at any given time. Therefore, the PE from each of these permit units can be calculated as follows:

The distillation wet scrubber is expected to control the VOC emissions from these tanks with a minimum efficiency of 95%.

$EF_{\text{Uncontrolled}} \text{ (lb-VOC/10}^3 \text{ gallon ethanol produced)} = 0.1161 \text{ lb-VOC/10}^3 \text{ gallon ethanol produced} / (1 - 0.95)$

$EF_{\text{Uncontrolled}} = 2.322 \text{ lb-VOC/10}^3 \text{ gallon ethanol produced}$

Uncontrolled Annual PE = EF (lb-VOC/10<sup>3</sup> gallon ethanol produced) x Throughput (gallon ethanol produced/year)

Uncontrolled Annual PE = 2.322 lb-VOC/10<sup>3</sup> gallon ethanol produced x 40,000,000 gallon ethanol produced/year

**Uncontrolled Annual PE = 92,880 lb-VOC/year**

#### CAM Section 64.3 Monitoring Design Criteria

This section specifies the design criteria for the CAM system.

Paragraph (a) (*General criteria*) requires that the CAM system be designed to obtain data for one or more appropriate indicators of emission control system performance and requires the owner to establish appropriate ranges or designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.

The following condition will satisfy the general design criteria of paragraph (a):

- The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [40 CFR 64]

Paragraph (b) (*Performance criteria*) requires the owner or operator to establish and maintain the following:

- Specifications to ensure that representative data are collected
- Verification procedures for startup of new monitoring equipment
- Quality assurance and control practices to ensure continuing validity of data
- Data collection frequency and procedures

The following conditions will satisfy the performance criteria of paragraph (b):

- The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [40 CFR 64]
- The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [40 CFR 64]

Paragraph (c) (*Evaluation factors*) requires the owner or operator to take into account site specific factors in the design of the CAM system.

Paragraph (d) (Special criteria for the use of continuous emission, opacity, or predictive monitoring systems) requires the owner or operator to use a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), or a predictive emission monitoring system (PEMS) to satisfy CAM requirements, provided that these monitoring systems are required pursuant to other authority under the Clean Air Act or state or local law. This subsection also stipulates the following:

As shown below, the post-control PE for permit units C-4261-38, '-41, '-42, and '-43 are below the major source threshold; therefore, CEMS, COMS, or PEMS is not required.

$$\frac{\text{Annual PE}_{\text{Controlled C-4261-38, '-41, '-42, and '-43}}}{\text{EF}_{\text{Controlled}} \text{ (lb-VOC/10}^3 \text{ gallon ethanol produced)}} = 0.1161 \text{ lb-VOC/10}^3 \text{ gallon ethanol produced}$$

$$\text{Annual PE} = \text{EF (lb-VOC/10}^3 \text{ gallon ethanol produced)} \times \text{Throughput (gallon ethanol produced/year)}$$

$$\text{Annual PE} = 0.1161 \text{ lb-VOC/10}^3 \text{ gallon ethanol produced} \times 40,000,000 \text{ gallon ethanol produced/year}$$

**Controlled Annual PE = 4,644 lb-VOC/year**

The owner or operator shall design the monitoring system subject to paragraph (d) to:

(i) Allow for reporting of exceedances (or excursions if applicable to a COMS used to assure compliance with a particulate matter standard), consistent with any period for reporting of exceedances in an underlying requirement. If an underlying requirement does not contain a provision for establishing an averaging period for the reporting of exceedances or excursions, the criteria used to develop an averaging period specified in the data collection procedures required under paragraph (b) of this section shall apply; and

(ii) Provide an indicator range consistent with paragraph (a) of this section for a COMS used to assure compliance with a particulate matter standard. If an opacity standard applies to the pollutant-specific emissions unit, such limit may be used as the appropriate indicator range unless the opacity limit fails to meet the criteria in paragraph (a) of this section after considering the type of control device and other site-specific factors applicable to the pollutant-specific emissions unit.

The following conditions will provide for the reporting of exceedances as required by paragraph (d)(i):

- The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64]
- The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64]

#### Section 64.4 - Submittal Requirements

This section specifies submittal requirements for the owner or operator which ensure the CAM system will comply with the design criteria of §64.3. As shown in Section 64.3 above, the CAM proposal of Pacific Ethanol Madera LLC satisfies the design criteria of section 64.3.

#### Section 64.5 - Deadlines for Submittals

This section specifies required timing for submittals required under §64.4. *Large pollutant-specific emissions units* (those with controlled emissions exceeding major source thresholds) are required to make the submittals as a part of the initial Title V permit application where the application has either not been filed or has not been deemed complete. Where the initial Title V permit has been issued without implementation of 40 CFR 64, the owner or operator must make the required submittals as a part of a subsequent application for any significant permit revision. If the required information is not submitted by either of these deadlines, it must be submitted as a part of the application for the Title V permit renewal.

For other pollutant-specific emissions units, the required submittal deadline is the application for Title V permit renewal.

Pacific Ethanol Madera LLC's initial Title V application will be accepted as satisfying the CAM submittal deadline for this facility.

#### Section 64.6 - Approval of monitoring



This section stipulates the following:

- A requirement that the permitting authority act to approve the proposed monitoring by confirming that the monitoring submitted complies with the requirements of §64.3.
- An allowance for the permitting authority to condition the approval based on collecting additional data on the indicators to be monitored, including performance or compliance testing.
- The minimum conditions that must be placed on the permit in the event that the proposed monitoring is approved by the permitting authority including a milestone schedule for completion of any conditional approval actions required by the owner or operator, such as installations, testing, or verification of operational status.
- Actions required by the permitting authority in the event that the proposed monitoring is not approved.

The proposed CAM conditions for Pacific Ethanol Madera LLC wet scrubber serving the distillation process comply with the design requirements of §64.3.

#### Section 64.7 - Operation of Approved Monitoring

This section requires the operator to:

- Commence the monitoring upon receipt of a Title V permit that includes such monitoring.
- Properly maintain the monitoring system.
- Operate the monitoring system continuously or at all times the emissions unit is operating except during repair or outage periods associated with monitor malfunction or with quality assurance and control activities.
- Upon detecting an excursion or exceedance, restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- A requirement for the owner or operator to document any need for improved monitoring based upon either an identification of a failure of the monitoring system to identify an excursion or exceedance or upon the results of compliance or performance testing that identifies a need to modify the monitoring.

The following conditions will ensure compliance with §64.7:

- If the water flow rate through the fermentation scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the fermentation scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [40 CFR 64]
- If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64]

#### Section 64.8 - Quality Improvement Plan (QIP) Requirements

This section stipulates that the Administrator or the permitting authority may require that the facility develop and implement a QIP in the event of a determination of a need for improved monitoring pursuant to §64.7. §64.8 also identifies the minimum elements required in the QIP, and requires that the facility implement the QIP as expeditiously as possible, with implementation not exceeding 180 days after the date that the need for implementation was identified unless the permitting authority is notified.

The following condition will ensure compliance with §64.8:

- If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64]

#### Section 64.9 Reporting and Recordkeeping Requirements

This section stipulates the minimum reporting and recordkeeping requirements for facilities subject to 40 CFR 64.

The following condition will address the requirements of this section:

- The permittee shall monitor and record the water flow rate through the fermentation scrubber at least once every day. [40 CFR 64]

#### Section 64.10 Savings Provisions

This section is a caveat stating that CAM provisions do not excuse an operator from complying with existing emission standards, testing, monitoring,

reporting, or recordkeeping requirements. Neither are CAM provisions intended to restrict the District from requiring additional or stricter monitoring or limit the District's ability to take enforcement action. This section does not impose additional requirements.

**C-4261-39 and '-40 (processes served by the fermentation scrubber vented to the RTO):**

1. The permit unit has emission limits for VOC.
2. The permit unit has an add-on control for VOC.
3. This permit unit may be subject to CAM for VOC since there is a VOC limit and has an add-on control in the form of a wet scrubber vented to a RTO. Based on the pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-VOC/yr has been exceeded. Therefore, the requirements of CAM are triggered.

**Ethanol Production Emissions:**

Each of these units is served by a wet scrubber vented to a 2.5 MMBtu/hr regenerative thermal oxidizer. As a worst case, it will be assumed that the emissions from the RTO exhaust could be generated by any one of these units at any given time. Therefore, the PE from each of these permit units will be calculated as follows:

As a conservative estimate and to ensure continued compliance with the District's BACT requirements for this class and category of operation, Pacific Ethanol Madera has proposed to use a control efficiency of 99.5% for the entire VOC control system serving the yeast tank, liquefaction tank, fermentation process, beerwell storage tank and process condensate tank.

$$\text{Annual PE} = \text{EF (lb-VOC/10}^3 \text{ gallon ethanol produced)} \\ \times \text{Throughput (gallon ethanol produced/year)} / (1 - 0.995)$$

$$\text{Annual PE} = 0.08365 \text{ lb-VOC/10}^3 \text{ gallon ethanol produced} \\ \times 40,000,000 \text{ gallon ethanol produced/year} / (1 - 0.995)$$

**Annual PE = 669,200 lb-VOC/year**

**CAM Section 64.3 Monitoring Design Criteria**

This section specifies the design criteria for the CAM system.

Paragraph (a) (*General criteria*) requires that the CAM system be designed to obtain data for one or more appropriate indicators of emission control system performance and requires the owner to establish appropriate ranges or

designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.

The following conditions on PTO C-4261-39 and '-40 will satisfy the general design criteria of paragraph (a):

- The RTO shall be permanently equipped with a temperature measurement device that detects the combustion chamber temperature. [40 CFR 64]
- The permittee shall monitor and record the chamber temperature of the RTO at least once a day while the laden process stream is vented to the RTO. [40 CFR 64]

Paragraph (b) (*Performance criteria*) requires the owner or operator to establish and maintain the following:

- Specifications to ensure that representative data are collected
- Verification procedures for startup of new monitoring equipment
- Quality assurance and control practices to ensure continuing validity of data
- Data collection frequency and procedures

The following conditions on PTO C-4261-39 and '-40 will satisfy the performance criteria of paragraph (b):

- The permittee shall monitor and record the chamber temperature of the RTO at least once a day while the laden process stream is vented to the RTO. [40 CFR 64]
- The RTO shall be fired only on PUC-regulated natural gas. [40 CFR 64]
- The RTO chamber temperature shall be maintained at a minimum temperature of 1,400 F before incinerating the vapors. [40 CFR 64]
- Records of RTO inspections and maintenance shall be maintained. These records shall include date of inspection, identification of the individual performing the inspection, and a description of the problem and the corrective action taken. [40 CFR 64]

Paragraph (c) (*Evaluation factors*) requires the owner or operator to take into account site specific factors in the design of the CAM system.

Paragraph (d) (*Special criteria for the use of continuous emission, opacity, or predictive monitoring systems*) requires the owner or operator to use a continuous emission monitoring system (CEMS), continuous opacity

monitoring system (COMS), or a predictive emission monitoring system (PEMS) to satisfy CAM requirements, provided that these monitoring systems are required pursuant to other authority under the Clean Air Act or state or local law. This subsection also stipulates the following:

As shown below, the post-control PE for permit units C-4261-39 and '-40 are below the major source threshold; therefore, CEMS, COMS, or PEMS is not required.

$$\frac{\text{Annual PE}_{\text{Controlled C-4261-39 and '-40}}}{\text{EF}_{\text{Controlled}} (\text{lb-VOC}/10^3 \text{ gallon ethanol produced})} = 0.08365 \text{ lb-VOC}/10^3 \text{ gallon ethanol produced}$$

$$\text{Annual PE} = \text{EF} (\text{lb-VOC}/10^3 \text{ gallon ethanol produced}) \times \text{Throughput} (\text{gallon ethanol produced}/\text{year})$$

$$\text{Annual PE} = 0.08365 \text{ lb-VOC}/10^3 \text{ gallon ethanol produced} \times 40,000,000 \text{ gallon ethanol produced}/\text{year}$$

$$\text{Annual PE}_{\text{Controlled}} = \mathbf{3,346 \text{ lb-VOC}/\text{year}}$$

The owner or operator shall design the monitoring system subject to paragraph (d) to:

The owner or operator shall design the monitoring system subject to paragraph (d) to:

(i) Allow for reporting of exceedances (or excursions if applicable to a COMS used to assure compliance with a particulate matter standard), consistent with any period for reporting of exceedances in an underlying requirement. If an underlying requirement does not contain a provision for establishing an averaging period for the reporting of exceedances or excursions, the criteria used to develop an averaging period specified in the data collection procedures required under paragraph (b) of this section shall apply; and

(ii) Provide an indicator range consistent with paragraph (a) of this section for a COMS used to assure compliance with a particulate matter standard. If an opacity standard applies to the pollutant-specific emissions unit, such limit may be used as the appropriate indicator range unless the opacity limit fails to meet the criteria in paragraph (a) of this section after considering the type of control device and other site-specific factors applicable to the pollutant-specific emissions unit.

The following conditions on PTO C-4261-39 and '-40 provide for the reporting of exceedances as required by paragraph (d)(i):

- The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64]
- The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64]

#### Section 64.4 - Submittal Requirements

This section specifies submittal requirements for the owner or operator which ensure the CAM system will comply with the design criteria of §64.3. As shown in Section 64.3 above, the CAM proposal of Pacific Ethanol Madera LLC satisfies the design criteria of section 64.3.

#### Section 64.5 - Deadlines for Submittals

This section specifies required timing for submittals required under §64.4. *Large pollutant-specific emissions units* (those with controlled emissions exceeding major source thresholds) are required to make the submittals as a part of the initial Title V permit application where the application has either not been filed or has not been deemed complete. Where the initial Title V permit has been issued without implementation of 40 CFR 64, the owner or operator must make the required submittals as a part of a subsequent application for any significant permit revision. If the required information is not submitted by either of these deadlines, it must be submitted as a part of the application for the Title V permit renewal.

For other pollutant-specific emissions units, the required submittal deadline is the application for Title V permit renewal.

Pacific Ethanol Madera LLC's initial Title V application will be accepted as satisfying the CAM submittal deadline for this facility.

#### Section 64.6 - Approval of monitoring

This section stipulates the following:

- A requirement that the permitting authority act to approve the proposed monitoring by confirming that the monitoring submitted complies with the requirements of §64.3.
- An allowance for the permitting authority to condition the approval based on collecting additional data on the indicators to be monitored, including performance or compliance testing.
- The minimum conditions that must be placed on the permit in the event that the proposed monitoring is approved by the permitting authority including a milestone schedule for completion of any conditional approval actions required by the owner or operator, such as installations, testing, or verification of operational status.
- Actions required by the permitting authority in the event that the proposed monitoring is not approved.

The proposed CAM conditions for Pacific Ethanol Madera LLC fermentation scrubber vented to the RTO comply with the design requirements of §64.3.

#### Section 64.7 - Operation of Approved Monitoring

This section requires the operator to:

- Commence the monitoring upon receipt of a Title V permit that includes such monitoring.
- Properly maintain the monitoring system.
- Operate the monitoring system continuously or at all times the emissions unit is operating except during repair or outage periods associated with monitor malfunction or with quality assurance and control activities.
- Upon detecting an excursion or exceedance, restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- A requirement for the owner or operator to document any need for improved monitoring based upon either an identification of a failure of the monitoring system to identify an excursion or exceedance or upon the results of compliance or performance testing that identifies a need to modify the monitoring.

The following conditions on PTO C-4261-39 and '-40 will ensure compliance with §64.7:

- The permittee shall monitor and record the chamber temperature of the RTO at least once a day while the laden process stream is vented to the RTO. [40 CFR 64]
- Records of RTO inspections and maintenance shall be maintained. These records shall include date of inspection, identification of the individual performing the inspection, and a description of the problem and the corrective action taken. [40 CFR 64]
- If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64]

#### Section 64.8 - Quality Improvement Plan (QIP) Requirements

This section stipulates that the Administrator or the permitting authority may require that the facility develop and implement a QIP in the event of a determination of a need for improved monitoring pursuant to §64.7. §64.8 also identifies the minimum elements required in the QIP, and requires that the facility implement the QIP as expeditiously as possible, with implementation not exceeding 180 days after the date that the need for implementation was identified unless the permitting authority is notified.

The following condition PTO C-4261-39 and '-40 will ensure compliance with §64.8:

- If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64]

#### Section 64.9 Reporting and Recordkeeping Requirements

This section stipulates the minimum reporting and recordkeeping requirements for facilities subject to 40 CFR 64.

The following condition on PTO C-4261-39 and '-40 address the requirements of this section:

- The permittee shall monitor and record the chamber temperature of the RTO at least once a day while the laden process stream is vented to the RTO. [40 CFR 64]



Section 64.10 Savings Provisions

This section is a caveat stating that CAM provisions do not excuse an operator from complying with existing emission standards, testing, monitoring, reporting, or recordkeeping requirements. Neither are CAM provisions intended to restrict the District from requiring additional or stricter monitoring or limit the District's ability to take enforcement action. This section does not impose additional requirements.

**C-4261-44 (wet cake storage and loadout operation):**

1. The permit unit has emission limits for VOC.
2. The permit unit does not have an add-on control for VOC.
3. This permit unit is not subject to CAM for VOC since there is no add-on control for VOC emissions. Therefore, the requirements of CAM are not triggered.

**C-4261-45 (190-proof ethanol storage tank):**

1. The permit unit has emission limits for VOC.
2. The permit unit has an add-on control for VOC.
3. This permit unit may be subject to CAM for VOC since there is a VOC limit and has an add-on control in the form of a seal system. Based on the pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-VOC/yr has not been exceeded. Therefore, the requirements of CAM are triggered.

The facility equipped the internal floating roof tank with an Ultraflote model Dual Ultraseal seal system, with a manufacturer's guarantee of 95% control efficiency. As a conservative estimate, the District used a control efficiency of 95% for VOC emissions to calculate Daily and Annual Potential to Emit as part of Project C-1071475.

To quantify the VOC emissions from each of these storage tanks, EPA program TANKS 4.0. The EPA TANKS 4.0 program quantifies monthly and annual VOC emissions. Therefore, in order to quantify the maximum daily VOC emissions, we will use the maximum daily throughput of 190-proof ethanol multiplied by 365 day/year:

In Madera, the hottest month of the year is commonly July. Therefore, the maximum daily emissions will be calculated using the month of July divided by the number of days in the July, 31.

Controlled Daily VOC Emissions = (22.85 lb-VOC/month) / (31 days) = 0.7 lb-VOC/day

Uncontrolled Daily VOC Emissions = 0.7 lb-VOC/day / (1 - 0.95) = 14.0 lb-VOC/day

Uncontrolled Annual VOC Emissions = Uncontrolled Daily VOC Emissions x 365 days/year

**Uncontrolled Annual VOC Emissions = 14.0 lb-VOC/day x 365 day/year = 5,110 lb-VOC/year**

**C-4261-46 (200-proof ethanol storage tank):**

1. The permit unit has emission limits for VOC.
2. The permit unit has an add-on control for VOC.
3. This permit unit may be subject to CAM for VOC since there is a VOC limit and has an add-on control in the form of a seal system. Based on the pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-VOC/yr has not been exceeded. Therefore, the requirements of CAM are triggered.

The facility equipped the internal floating roof tank with an Ultraflote model Dual Ultraseal seal system, with a manufacturer's guarantee of 95% control efficiency. As a conservative estimate, the District used a control efficiency of 95% for VOC emissions to calculate Daily and Annual Potential to Emit as part of Project C-1071475.

To quantify the VOC emissions from each of these storage tanks, EPA program TANKS 4.0 was used. The EPA TANKS 4.0 program quantifies monthly and annual VOC emissions. Therefore, in order to quantify the maximum daily VOC emissions, we will use the maximum daily throughput of 200-proof ethanol multiplied by 365 day/year:

In Madera, the hottest month of the year is commonly July. Therefore, the maximum daily emissions will be calculated using the month of July divided by the number of days in the July, 31.

Controlled Daily VOC Emissions = (52.42 lb-VOC/month) / (31 days) = 1.7 lb-VOC/day

Uncontrolled Daily VOC Emissions = 1.7 lb-VOC/day / (1 - 0.95) = 34.0 lb-VOC/day

Uncontrolled Annual VOC Emissions = Uncontrolled Daily VOC Emissions x 365 days/year

**Uncontrolled Annual VOC Emissions = 34.0 lb-VOC/day x 365 days/year = 12,410 lb-VOC/year**

**C-4261-47 (denatured ethanol storage tank):**

1. The permit unit has emission limits for VOC.

2. The permit unit has an add-on control for VOC.
3. This permit unit may be subject to CAM for VOC since there is a VOC limit and has an add-on control in the form of a seal system. Based on the pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-VOC/yr has not been exceeded. Therefore, the requirements of CAM are triggered.

The facility equipped the internal floating roof tank with an Ultraflote model Dual Ultraseal seal system, with a manufacturer's guarantee of 95% control efficiency. As a conservative estimate, the District used a control efficiency of 95% for VOC emissions to calculate Daily and Annual Potential to Emit as part of Project C-1071475.

To quantify the VOC emissions from this storage tank, EPA program TANKS 4.0 was used. The EPA TANKS 4.0 program quantifies monthly and annual VOC emissions. Therefore, in order to quantify the maximum daily VOC emissions, we will use the maximum daily throughput of denatured ethanol multiplied by 365 day/year:

In Madera, the hottest month of the year is commonly July. Therefore, the maximum daily emissions will be calculated using the month of July divided by the number of days in the July, 31.

Controlled Daily VOC Emissions = (50.84 lb-VOC/month) / (31 days) = 1.6 lb-VOC/day

Uncontrolled Daily VOC Emissions = 1.6 lb-VOC/day / (1 - 0.95) = 32.0 lb-VOC/day

Uncontrolled Annual VOC Emissions = Uncontrolled Daily VOC Emissions x 365 days/year

**Uncontrolled Annual VOC Emissions = 32.0 lb-VOC/day x 365 days/year = 11,680 lb-VOC/year**

**C-4261-48 (190-proof ethanol storage tank):**

1. The permit unit has emission limits for VOC.
2. The permit unit has an add-on control for VOC.
3. This permit unit may be subject to CAM for VOC since there is a VOC limit and has an add-on control in the form of a seal system. Based on the combined pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-VOC/yr has not been exceeded. Therefore, the requirements of CAM are triggered.

The facility equipped the internal floating roof tank with an Ultraflote model Dual Ultraseal seal system, with a manufacturer's guarantee of 95% control efficiency.

As a conservative estimate, the District used a control efficiency of 95% for VOC emissions to calculate Daily and Annual Potential to Emit as part of Project C-1071475.

To quantify the VOC emissions from this storage tank, EPA program TANKS 4.0 was used. The EPA TANKS 4.0 program quantifies monthly and annual VOC emissions. Therefore, to quantify daily VOC emissions, we will use the maximum daily throughput of gasoline multiplied by 365 days/year:

In Madera, the hottest month of the year is commonly July. Therefore, maximum daily emissions will be calculated using the month of July divided by the number of days in the July, 31.

$$\text{Daily VOC Emissions} = (60.08 \text{ lb-VOC/month}) / (31 \text{ days}) = 1.94 \text{ lb-VOC/day}$$

$$\text{Uncontrolled Daily VOC Emissions} = 1.94 \text{ lb-VOC/day} / (1 - 0.95) = 38.8 \text{ lb-VOC/day}$$

$$\text{Uncontrolled Annual VOC Emissions} = \text{Uncontrolled Daily VOC Emissions} \times 365 \text{ days/year}$$

$$\text{Uncontrolled Annual VOC Emissions} = 38.8 \text{ lb-VOC/day} \times 365 \text{ days/year} = 14,162 \text{ lb-VOC/year}$$

**C-4261-53 (265 bhp IC engine):**

1. The permit unit has emission limits for NOx, CO, VOC, PM10, and SOx.
2. The permit unit has an add-on control for NOx.
3. This permit unit may be subject to CAM for NOx since there is a NOx limit and has an add-on control in the form of a turbocharger and intercool/aftercooler. Based on the pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-NOx/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The engine is equipped with a turbocharger and an intercooler/aftercooler. These controls reduce NOx emissions by a total of 25%. Therefore, the following uncontrolled emissions factors are as follows:

$$\text{Controlled EF NOx: } 5.70 \text{ g-NOx/bhp-hr}$$

$$\text{Uncontrolled NOx: } 5.70 \text{ g-NOx/bhp-hr} / (1 - 0.25) = 7.6 \text{ g-NOx/bhp-hr}$$

Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Annual Hours of Operation (hrs/yr)	Conversion (g/lb)	PE2 Total (lb/yr)
NO <sub>x</sub>	7.6	265	100	453.6	444

**C-4261-54 (cooling tower):**

1. The permit unit has emission limits for PM10.
2. The permit unit has an add-on control for PM10.
3. Based on the pre-controlled annual emissions (shown below), the major source threshold of 140,000 lb-NOx/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The maximum water flowrate through the cooling tower is 14,300 gallons per minute. Therefore, the PM<sub>10</sub> emissions from the cooling tower can be estimated using AP-42 Table 13.4-1 (1/95) for uncontrolled induced draft cooling towers.

	Emission Factor (% gal drift/gal)
Uncontrolled	0.020

$$\begin{aligned}
 EF_{Precontrol} &= \frac{0.02 \text{ gal drift}}{100 \text{ gal}} \times \frac{1000 \text{ part solid}}{\text{part water}} \times \frac{1 \text{ part}}{10^6 \text{ parts}} \times \frac{8.34 \text{ lb}}{\text{gal}} \times \frac{1 \text{ lb PM}_{10}}{\text{lb solid}} \\
 &= 1.668 \times 10^{-6} \frac{\text{lb PM}_{10}}{\text{gal}}
 \end{aligned}$$

Annual PM<sub>10</sub> PE = EF (lb/gallon) x water throughput (gal/min) x 60 min/hr x 8,760 hr/year

Annual PM<sub>10</sub> PE = 0.000001668 lb-PM10/gallon x 14,300 gal/min x 60 min/hr x 8,760 hr/year

**Annual PM<sub>10</sub> PE = 12,537 lb/year**

**C-4261-55 (pressure vessel):**

1. The permit unit has emission limits for VOC.
2. The permit unit does not have an add-on control for VOC.
3. The storage tank is totally enclosed and is designed to prevent loss of organic liquid and/or VOC to the atmosphere. The tank is not equipped with any external control equipment. Therefore, the requirements of CAM are not triggered.

**C-4261-56 (denatured ethanol storage tanks):**

1. The permit unit has emission limits for VOC.
2. The permit unit has an add-on control for VOC.
3. This permit unit may be subject to CAM for VOC since there is a VOC limit and has an add-on control in the form of a seal system. Based on the pre-controlled annual emissions (shown below), the major source threshold of 20,000 lb-VOC/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The facility equipped the internal floating roof tank with an Ultraflote model Dual Ultraseal seal system, with a manufacturer's guarantee of 95% control efficiency.

As a conservative estimate, the District used a control efficiency of 95% for VOC to calculate Daily and Annual Potential to Emit as part of Project C-1071475.

To quantify the VOC emissions from this storage tank, EPA program TANKS 4.0 was used. The EPA TANKS 4.0 program quantifies monthly and annual VOC emissions. Therefore, in order to quantify the maximum daily VOC emissions, we will use the maximum daily throughput of denatured ethanol multiplied by 365 day/year:

In Madera, the hottest month of the year is commonly July. Therefore, the maximum daily emissions will be calculated using the month of July divided by the number of days in July, 31.

$$\text{Daily VOC Emissions} = (44.87 \text{ lb-VOC/month}) / (31 \text{ days}) = 1.4 \text{ lb-VOC/day}$$

$$\text{Uncontrolled Daily VOC Emissions} = 1.4 \text{ lb-VOC/day} / (1 - 0.95) = 28.0 \text{ lb-VOC/day}$$

$$\text{Uncontrolled Annual VOC Emissions} = \text{Uncontrolled Daily VOC Emissions} \times 365 \text{ days/year}$$

$$\text{Uncontrolled Annual VOC Emissions} = 28.0 \text{ lb-VOC/day} \times 365 \text{ days/year} = 10,220 \text{ lb-VOC/year}$$

**C-4261-57 (new hammermilling operation):**

1. The permit unit has emission limits for PM10.
2. The permit unit has an add-on control for PM10.
3. This permit unit may be subject to CAM for PM10 since there is a PM10 limit and has an add-on control in the form of a baghouse. Based on the pre-controlled annual emissions (shown below), the major source threshold of 140,000 lb-PM10/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The daily PE from the hammermilling of the grain can be calculated using the total emission factor listed below and the process throughput proposed by the applicant. The annual PE will be calculated using a worst case operating schedule of 365 days per year.

The emissions from this operation will be determined using the sum of the emission factors listed below:

$$\text{Uncontrolled PM}_{10} \text{ EF} = \text{EF}_{\text{Transfer Day Bins}} + \text{EF}_{\text{Transfer Hammermills}} + \text{EF}_{\text{Hammermills}}$$

$$\text{EF}_{\text{Transfer Day Bins}} = 0.034 \text{ lb/ton}$$

$$\text{EF}_{\text{Transfer Hammermills}} = 0.034 \text{ lb/ton}$$

$$\text{EF}_{\text{Hammermills}} = 0.012 \text{ lb/ton}$$

$$\text{Uncontrolled PM}_{10} \text{ EF} = 0.034 \text{ lb/ton} + 0.034 \text{ lb/ton} + 0.012 \text{ lb/ton} = 0.08 \text{ lb/ton}$$

Daily PE:

Daily PM<sub>10</sub> PE (lb/day) = EF (lb/ton) x Throughput (ton/day)

Daily PM<sub>10</sub> PE (lb/day) = 0.08 lb/ton x 1,000 ton/day

Daily PM<sub>10</sub> PE = 80 lb/day

Annual PE:

Annual PM<sub>10</sub> PE (lb/day) = Daily PE (lb/day) x 365 days/year

Annual PM<sub>10</sub> PE (lb/day) = 80 lb/day x 365 days/year

**Annual PM<sub>10</sub> PE = 29,200 lb/year**

**C-4261-58 (powder lime pneumatic receiving and storage operation):**

1. The permit unit has emission limits for PM10.
2. The permit unit has an add-on control for PM10.
3. This permit unit may be subject to CAM for PM10 since there is a PM10 limit and has an add-on control in the form of a baghouse. Based on the pre-controlled annual emissions (shown below), the major source threshold of 140,000 lb-PM10/yr has not been exceeded. Therefore, the requirements of CAM are not triggered.

The bin vent filter serving the baghouse is guaranteed by the manufacturer to 99.5% control efficiency for PM10 emissions. As a conservative estimate, the District used 99.0% control efficiency for PM10 to calculate Daily and Annual Potential to Emit as part of Project C-1080742.

PM emission factor is from AP-42, Table 11.17-4. Emission factor is 2.2 lb PM (TSP)/ton of lime loaded. Assuming 50% of PM is PM10, emission factor is 1.1 lb PM10/ton of lime loaded.

Maximum annual throughput of lime is 300 tons, therefore:

Controlled Annual PM<sub>10</sub> = 1.1 lb PM10/ton of lime loaded x 300 tons loaded/year x (1 - 0.99) = 3 lb PM10/year

Uncontrolled Annual PM<sub>10</sub> PE = 1.1 lb PM10/ton of lime loaded x 300 tons loaded/year

**Uncontrolled Annual PM<sub>10</sub> PE = 300 lb/year**

**X. PERMIT SHIELD**

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of

the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

By using the model general permit template(s) listed in Section IV of this evaluation, the applicant has requested that a permit shield be issued for requirements addressed in the template(s). The basis for each permit shield is discussed in the Permit Shield section of each template.

B. Requirements not Addressed by Model General Permit Templates

The model general permit template contains requirements related to the permit shields. Therefore, no further discussion is necessary.

## **XI. PERMIT CONDITIONS**

See Attachment A – Draft Title V Operating Permit.

## **XII. ATTACHMENTS**

- A. Draft Title V Operating Permit
- B. Detailed Facility List
- C. Permits to Operate
- D. Insignificant Activities



**Attachment A**  
**Draft Title V Operating Permit**

# San Joaquin Valley Air Pollution Control District

FACILITY: C-4261-0-1

EXPIRATION DATE: 11/30/2016

## FACILITY-WIDE REQUIREMENTS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: PACIFIC ETHANOL MADERA LLC  
Location: 31470 AVENUE 12, MADERA, CA 93637  
C-4261-0-1 : Oct 24 2012 1:00PM - YOSHIMUJ

9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. On Month, Day, Year, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
43. The operator shall meet operating, inspection and re-inspection, maintenance, process pressure relief device (PRD) and component identification requirements of District Rule 4455 (4/20/05) for all components containing or contacting VOC, except for those components specifically exempted in Sections 4.1 and 4.2. [District Rule 4455, 5.0] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

44. The operator shall not use any component that leaks in excess of the allowable leak standards, except as follows. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
45. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
46. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4 and 40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
47. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2; 40 CFR 60.482-2(a), (b) and (c); 40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
48. The operator shall inspect all components at least once every calendar quarter. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5 through 5.2.7. Components shall be inspected using EPA Method 21. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7; 40 CFR 60.482-2(a), (b) and (g); 40 CFR 60.482-7(a), (b), (g) and (h)] Federally Enforceable Through Title V Permit
49. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8; 40 CFR 60.482-7] Federally Enforceable Through Title V Permit
50. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit
51. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11 and 40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
52. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
53. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected using EPA Method 21; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1 & 5.3.2; 40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

54. The tag shall include date and time of leak detection, date and time of leak measurement, indicate the leak concentration in ppmv (gas leaks), indicate whether it is a major or a minor leak (liquid leaks) and whether the leaking component is an essential component, unsafe-to-monitor component or critical component. [District Rule 4455, 5.3.3] Federally Enforceable Through Title V Permit
55. All component leaks shall be immediately minimized to the extent possible, but not later than one (1) hour after detection of leaks, in order to stop or reduce leakage to the atmosphere. As soon as practicable but not later than the time period specified in Table 3 of the rule, components that have been identified as leaking and have had emissions minimized to the extent possible but do not meet the applicable leak standards of the rule shall either be: 1) repaired or replaced, or 2) vented to a closed vent system, or 3) removed from operation. [District Rule 4455, 5.3.] Federally Enforceable Through Title V Permit
56. For any leaking component that is an essential or critical component, and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized but still exceeds any of the applicable leak standards of this rule, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
57. For any component that has incurred five repair actions for major gas leaks or major liquid leaks (any combination) within a continuous 12-month period, the operator shall as soon as practicable but not later than 12 after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of the rule, or 2) replace the component with Best Available Control Technology (BACT) equipment, as approved by the APCO, or 3) vent the component to an APCO approved closed vent system as defined in Section 3.0 of the rule, or 4) remove the component from operation. Inaccessible components, unsafe-to-monitor components, essential components, or critical components shall satisfy the above-listed requirement as soon as practicable but not later than the next turnaround or not later than two (2) years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes earlier. The APCO shall be notified in writing prior to the replacement or retrofitting of any component. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
58. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
59. The operator shall comply with the process PRD release notification and record keeping requirements specified in Section 6.3 of the rule. After a release from process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. [District Rule 4455, 5.4.3 and 5.4.4] Federally Enforceable Through Title V Permit
60. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and record keeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other APCO-approved system that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4455, 5.5] Federally Enforceable Through Title V Permit
61. The operator shall keep a copy of the OMP at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved Operator Management Plan. [District Rule 4455, 6.1.2] Federally Enforceable Through Title V Permit
62. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of the rule. [District Rule 4455, 6.2.1; 40 CFR 60.486(c)] Federally Enforceable Through Title V Permit

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63. The operator shall notify the APCO, by telephone or other APCO-approved methods, of any process PRD release in excess of 500 pounds of VOC in a continuous 24-hour period, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. The operator shall submit a written report to the APCO within thirty (30) calendar days of following notification of process PRD release subject to 6.3.1 of the rule. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of the rule. [District Rule 4455, 6.3] Federally Enforceable Through Title V Permit
64. Measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument, calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. Operator shall keep a record of each instrument calibration in accordance with requirements as set forth Section 6.2.3 of the rule. [District Rule 4455, 6.4; 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
65. Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)] Federally Enforceable Through Title V Permit
66. Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)] Federally Enforceable Through Title V Permit
67. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)] Federally Enforceable Through Title V Permit
68. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1(c)] Federally Enforceable Through Title V Permit
69. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
70. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
71. When a leak is detected for each PLLS, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
72. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
73. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
74. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit

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75. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [District Rule 40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit
76. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
77. Unless exempt under 40 CFR 60.482-3, 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 60.482-3(h) and (i). The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3(b)(1), (2), or (3). [40 CFR 60.482-3(a), (b), and (c)] Federally Enforceable Through Title V Permit
78. If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. 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. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3(d), (e), and (f)] Federally Enforceable Through Title V Permit
79. If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)] Federally Enforceable Through Title V Permit
80. Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3(i)(1) and (2). [40 CFR 60.482-3(i)] Federally Enforceable Through Title V Permit
81. Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3(j)] Federally Enforceable Through Title V Permit
82. 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 100 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
83. 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 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
84. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit

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85. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
86. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
87. 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 60.482-1(c). 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. 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 this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
88. 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. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
89. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
90. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
91. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit
92. Any valve in gas/vapor service or in light liquid service 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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
93. When a leak is detected for any valve in gas/vapor service or in light liquid service, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
94. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
95. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit

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96. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
97. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
98. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, 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 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
99. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit
100. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
101. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit
102. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
103. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
104. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit

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105. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
106. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
107. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
108. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
109. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.483-1 and 60.483-2] Federally Enforceable Through Title V Permit
110. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VV. [40 CFR 60.484(a)] Federally Enforceable Through Title V Permit
111. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit
112. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppmv of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 100 ppmv methane or n-hexane for valves and connectors and 500 ppmv methane or n-hexane for pumps and compressor seals. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
113. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and 500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit

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114. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
115. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
116. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
117. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
118. An owner or operator of more than one affected facility subject to the provisions Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
119. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, 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 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
120. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 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 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals; 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 (or designate) whose decision it was that 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; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

121. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
122. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with <sup>+</sup> 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), <sup>+</sup> 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
123. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
124. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
125. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
126. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit
127. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
128. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV. [40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
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129. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 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 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (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 in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
130. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
131. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VV 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 60.487(e)] Federally Enforceable Through Title V Permit
132. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-29-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

TRUCK AND RAILCAR GRAIN RECEIVING AND STORAGE OPERATION INCLUDING A RECEIVING SHED, RAILCAR AND TRUCK RECEIVING HOPPERS, A RECEIVING DRAG CONVEYOR, A RECEIVING LEG (ELEVATOR), ALL SERVED BY A CUSTOM MADE AGRI-SYSTEM BAGHOUSE; AND EIGHT 165,302 BUSHEL CAPACITY GRAIN SILOS, AND THREE 48,227 BUSHEL CAPACITY INTERSTICE BINS ALL SERVED BY AGRI SYSTEM BIN VENT FILTERS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Visible emissions from the exhaust of the baghouse serving the grain receiving operation and from the exhaust of the bin vent filters serving the grain storage silos shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. The baghouse and bin vent filters shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse and bin vent filters cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. For each type of baghouse and bin vent filter, a spare set of bags shall be maintained on the premises at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Material removed from the dust collectors shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Grain conveyors at the grain railcar and truck receiving operation shall be fully enclosed. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum amount of grain received and transferred to storage shall not exceed either of the following limits: 18,000 tons/day or 432,000 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



13. Controlled PM10 emissions (controlled and fugitive combined) from the truck and railcar grain receiving operation shall not exceed 0.00052 lb-PM10/ton-grain received. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain conveyed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The permittee shall maintain daily and annual records of the amount of grain received and transferred to storage, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Records of all maintenance of the baghouse and bin vent filters, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
18. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-30-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN FLAKING (ROLLING) AND COOLING OPERATION INCLUDING SURGE HOPPERS, TWO GRAIN SCALPERS, TWO ELEVATORS, THREE COUNTER FLOW COOLERS, AND THREE ROLLER (FLAKING) MILLS, EACH SERVED BY A BUHLER MODEL PDAZ COMPACT SEPARATOR

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Grain inlet and discharge conveyors at the grain flaking and cooling operation shall be fully enclosed and sealed to the grinder. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The dust separator system shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The maximum amount of grain processed through the grain flaking and cooling operation shall not exceed of the following limits: 2,160 tons/day or 600,000 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Controlled PM10 emissions from the flaking and cooling of the grain shall not exceed 0.0125 lb-PM10/ton-grain processed. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain processed. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The permittee shall maintain daily and annual records of the amount of grain processed through this operation, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Records of all maintenance of the compact separators shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
12. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-32-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

FLAKED GRAIN STORAGE OPERATION CONSISTING OF THREE 544 TON CAPACITY LOADOUT BINS, THREE 608 TON CAPACITY LOADOUT BINS, TWO 301 TON CAPACITY LOADOUT BINS, ALL SERVED BY AGRI SYSTEM BIN VENT FILTERS; AND TWO ELEVATORS AND TWO FILL CONVEYORS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Visible emissions from the exhaust of the bin vent filters serving the grain storage silos shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201 and 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Grain inlet and discharge conveyors at the grain flaking and storage operation shall be fully enclosed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The bin vent filters shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The bin vent filters cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
7. For each type of bin vent filter, a spare set of bags shall be maintained on the premises at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The maximum amount of grain processed through the flaked grain storage operation shall not exceed 2,160 tons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain conveyed. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall maintain daily records of the amount of grain processed through flaked grain storage operation, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Records of all maintenance of the bin vent filters, including all change outs of filter media, shall be maintained [District Rule 2201] Federally Enforceable Through Title V Permit
13. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-33-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN TRUCK LOADING OPERATION CONSISTING OF ENCLOSED CONVEYORS AND, A LIQUID APPLICATOR LOADOUT CONVEYOR, AND FLEXIBLE LOADOUT SPOUT

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Grain conveyors at the grain truck loading operation shall be fully enclosed from the silo to the loading spout. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The maximum amount of grain processed through the flaked grain truck loadout operation shall not exceed 2,000 tons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Controlled PM10 emissions from the grain truck loadout operation shall not exceed 0.0008 lb-PM10/ton-grain loaded out. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain conveyed. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The permittee shall maintain daily records of the amount of grain loaded out into trucks, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-34-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN HAMMERMILL OPERATION #1 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-35 AND '-57); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Visible emissions from the exhaust of the baghouse(s) serving the hammermill and associated conveying equipment shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Grain inlet conveyors at the grain hammermill operation shall be fully enclosed and sealed to the hammermill. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Grain discharge conveyors from the hammermill(s) to the slurry tank shall be fully enclosed and sealed to the hammermill and the slurry tank cover. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Replacement bags numbering at least 10% of the total number of bags in each baghouse shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum amount of grain processed through each hammermill shall not exceed 1,000 tons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined maximum amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57 shall not exceed 432,000 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

14. Controlled PM10 emissions from the hammermilling of the grain shall not exceed 0.012 lb/ton-grain processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00068 lb/ton-grain conveyed. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The permittee shall maintain daily records of the amount of grain processed through the hammermill, in tons, and annual records of the combined amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Differential operating pressure shall be monitored and recorded on each day that each baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-35-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN HAMMERMILL OPERATION #2 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-34 AND '-57); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Visible emissions from the exhaust of the baghouse(s) serving the hammermill and associated conveying equipment shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Grain inlet conveyors at the grain hammermill operation shall be fully enclosed and sealed to the hammermill. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Grain discharge conveyors from the hammermill(s) to the slurry tank shall be fully enclosed and sealed to the hammermill and the slurry tank cover. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Replacement bags numbering at least 10% of the total number of bags in each baghouse shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum amount of grain processed through each hammermill shall not exceed 1,000 tons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined maximum amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57 shall not exceed 432,000 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

14. Controlled PM10 emissions from the hammermilling of the grain shall not exceed 0.012 lb/ton-grain processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00068 lb/ton-grain conveyed. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The permittee shall maintain daily records of the amount of grain processed through the hammermill, in tons, and annual records of the combined amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Differential operating pressure shall be monitored and recorded on each day that each baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-36-4

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 12,000 GALLON SLURRY TANK SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-38, '41, '42 AND '43 [COMPLIANT DORMANT EMISSIONS UNIT])

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All vapors from the slurry tank shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The "distillation" (aka "process") scrubber shall maintain a minimum control efficiency of 95% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
8. There shall be no fugitive VOC emissions from equipment leaks associated with this slurry tank. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Source testing to determine the VOC emissions rate from the outlet of the "distillation" (aka "process") scrubber, expressed as lb-VOC/gal-ethanol produced, shall be conducted at least once every twelve (12) months. After demonstrating compliance on two consecutive annual source tests, the unit shall be tested not less than once every twenty-four (24) months. If the result of the 24-month source test demonstrates that the unit does not meet the applicable limit(s), the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Source testing to determine the VOC control efficiency of the "distillation" (aka "process") scrubber shall be conducted at least once every twelve (12) months. After demonstrating compliance on two consecutive annual source tests, the unit shall be tested not less than once every twenty-four (24) months. If the result of the 24-month source test demonstrates that the unit does not meet the applicable limit(s), the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Source testing to determine the rate of VOC, measured in ppmv and converted to lb-VOC/gal-ethanol produced, shall be conducted using EPA Method 25 or 25A in conjunction with the results of the EPA Method 18 conducted previously on the exhaust of the scrubber serving the distillation process at Pacific Ethanol Madera or Pacific Ethanol Stockton. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
17. During source testing, permittee shall maintain records of the amount of ethanol produced, measured in gal-ethanol/hour. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The "distillation" (aka "process") scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The water flow rate through the "distillation" (aka "process") scrubber shall not be less than 10 gal/minute. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The permittee shall monitor and record the water flow rate through the "distillation" (aka "process") scrubber at least once every day [District Rule 2201] Federally Enforceable Through Title V Permit
22. If the water flow rate through the "distillation" (aka "process") scrubber is less than 10 gal/minute, the permittee shall correct the water flow rate to exceed 10 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the "distillation" (aka "process") scrubber continues to be less than 10 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the "distillation" (aka "process") scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 10 gal/minute limit. [District Rule 2201] Federally Enforceable Through Title V Permit
24. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-37-6

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

COMPLIANT DORMANT 103,500 GALLON YEAST PROPAGATION TANK SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-39 AND '40. RTO ALSO SHARED WITH C-4261-49)

## PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The feed supply lines from the yeast tank to each of the fermentation tanks shall be physically disconnected. [District Rule 2010] Federally Enforceable Through Title V Permit
3. Operators shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant emissions unit, at which time this permit will be administratively modified to removed the DEU references. [District Rule 2010] Federally Enforceable Through Title V Permit
4. A source test to demonstrate compliance with the indicated emission limits/control efficiencies shall be performed within 60 days of recommencing operation of this unit. [District Rule 2010] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All vapors from the yeast propagation tank shall be vented through the "fermentation" (aka "CO2") scrubber and then through the RTO. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The overall control efficiency achieved by the "fermentation" (aka "CO2") scrubber and RTO combined shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Controlled VOC emissions rate from the yeast propagation tank served by the "fermentation" (aka "CO2") scrubber vented to the RTO shall not exceed 0.08365 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Controlled VOC emissions rate from the exhaust of the RTO while serving the yeast propagation tank, fermentation process tanks, beerwell process tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Fugitive VOC emissions from equipment leaks associated with this yeast propagation tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
16. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
17. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
19. Upon recommencing operation, source testing to determine the VOC emission rate (expressed as lb-VOC/1,000 gal-ethanol produced) from the outlet of the RTO shall be conducted at least once every twelve (12) months. Source testing shall be conducted under conditions representative of normal operations and while no denatured ethanol is being processed through the loading rack permitted under C-4261-49. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Upon recommencing operation, source testing to demonstrate compliance with the 99.5% overall VOC control efficiency of the "fermentation" (aka "CO2") scrubber vented to the RTO shall be conducted at least once every twelve (12) months. Source testing shall be conducted under conditions representative of normal operations and while no denatured ethanol is being processed through the loading rack permitted under C-4261-49. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
22. Source testing to determine the rate of VOC, measured in ppmv and converted to lb-VOC/gal-ethanol produced, shall be conducted using EPA Method 25 or 25A in conjunction with the results of EPA Method 18 conducted previously on the exhaust of the scrubber serving the fermentation process at Pacific Ethanol Madera or Pacific Ethanol Stockton. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
23. During source testing, permittee shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The "fermentation" (aka "CO2") scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The water flow rate through the "fermentation" (aka "CO2") scrubber shall not be less than 30 gal/minute. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Upon recommencing operation, the permittee shall monitor and record the water flow rate through the "fermentation" (aka "CO2") scrubber at least once every day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

28. If the water flow rate through the "fermentation" (aka "CO2") scrubber is less than 30 gal/minute, the permittee shall correct the water flow rate to exceed 30 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the "fermentation" (aka "CO2") scrubber continues to be less than 30 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Upon recommencing operation, the permittee shall maintain daily records of (1) the date of water flow rate measurements, (2) the water flow rate through the "fermentation" (aka "CO2") scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 30 gal/minute limit. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
31. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
32. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
33. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
34. Upon recommencing operation, this operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
35. Upon recommencing operation, this operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
36. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-38-4

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 70,800 GALLON LIQUEFACTION TANK SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-41, '-42 AND '-43)

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All vapors from the liquefaction tank shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the distillation process; consisting of one de-gas vessel, one beer stripper, one side rectifier, one rectifier, and one molecular sieve, shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions from equipment leaks associated with this liquefaction tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
19. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
20. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [40 CFR 64] Federally Enforceable Through Title V Permit
21. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [40 CFR 64] Federally Enforceable Through Title V Permit
22. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64] Federally Enforceable Through Title V Permit
23. The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64] Federally Enforceable Through Title V Permit
24. If the water flow rate through the fermentation scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the fermentation scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [40 CFR 64] Federally Enforceable Through Title V Permit
25. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

26. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-39-5

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

FERMENTATION PROCESS CONSISTING OF FOUR IDENTICAL 420,000 GALLON FERMENTATION TANKS ALL SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-37 AND '40. RTO ALSO SHARED WITH C-4261-49)

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All vapors from the fermentation tanks shall be vented through the "fermentation" (aka "CO2") scrubber and then through the RTO. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Controlled VOC emissions rate from each fermentation tank served by the "fermentation" (aka "CO2") scrubber vented to the RTO shall not exceed 0.08365 lb/1,000 gal-ethanol produced at the facility. Compliance with this VOC emission limit shall be determined by summing the measured VOC emission rates (as lb-VOC/1,000 gal-ethanol produced) at the RTO. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled VOC emissions rate from the entire fermentation process served by the "fermentation" (aka "CO2") scrubber vented to the RTO shall not exceed 0.08365 lb-VOC/1,000 gal-ethanol produced at the facility. Compliance with this VOC emission limit shall be determined by summing the measured VOC emission rates (as lb-VOC/1,000 gal-ethanol produced) at the RTO and the catalytic oxidizer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Controlled VOC emissions rate from the exhaust of the RTO while serving the yeast propagation tank, fermentation process, beerwell process tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions from equipment leaks associated with the fermentation process shall not exceed 3.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Tanks shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

11. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
12. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
14. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
15. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
16. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
17. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
18. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
19. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
20. The RTO shall be permanently equipped with a temperature measurement device that detects the combustion chamber temperature. [40 CFR 64] Federally Enforceable Through Title V Permit
21. The permittee shall monitor and record the chamber temperature of the RTO at least once a day while the laden process stream is vented to the RTO. [40 CFR 64] Federally Enforceable Through Title V Permit
22. The RTO shall be fired only on PUC-regulated natural gas. [40 CFR 64] Federally Enforceable Through Title V Permit
23. The RTO chamber temperature shall be maintained at a minimum temperature of 1,400 F before incinerating the vapors. [40 CFR 64] Federally Enforceable Through Title V Permit
24. Records of RTO inspections and maintenance shall be maintained. These records shall include date of inspection, identification of the individual performing the inspection, and a description of the problem and the corrective action taken. [40 CFR 64] Federally Enforceable Through Title V Permit
25. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

26. The owner of operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64] Federally Enforceable Through Title V Permit
27. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64] Federally Enforceable Through Title V Permit
28. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-40-5

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 550,000 GALLON FIXED ROOF BEERWELL PROCESS TANK SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-37 AND '39. RTO ALSO SHARED WITH C-4261-49)

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All vapors from the beerwell process tank shall be vented through the "fermentation" (aka "CO2") scrubber and then through the RTO. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Controlled VOC emissions rate from the beerwell process tank served by the "fermentation" (aka "CO2") scrubber vented to the RTO shall not exceed 0.08365 lb/1,000 gal-ethanol produced at the facility. Compliance with this VOC emission limit shall be determined by summing the measured VOC emission rates (as lb-VOC/1,000 gal-ethanol produced) at the RTO and the catalytic oxidizer. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled VOC emissions rate from the exhaust of the RTO while serving the yeast propagation tank, fermentation process, beerwell process tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions from equipment leaks associated with the beerwell process tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
19. The RTO shall be permanently equipped with a temperature measurement device that detects the combustion chamber temperature. [40 CFR 64] Federally Enforceable Through Title V Permit
20. The permittee shall monitor and record the chamber temperature of the RTO at least once a day while the laden process stream is vented to the RTO. [40 CFR 64] Federally Enforceable Through Title V Permit
21. The RTO shall be fired only on PUC-regulated natural gas. [40 CFR 64] Federally Enforceable Through Title V Permit
22. The RTO chamber temperature shall be maintained at a minimum temperature of 1,400 F before incinerating the vapors. [40 CFR 64] Federally Enforceable Through Title V Permit
23. Records of RTO inspections and maintenance shall be maintained. These records shall include date of inspection, identification of the individual performing the inspection, and a description of the problem and the corrective action taken. [40 CFR 64] Federally Enforceable Through Title V Permit
24. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64] Federally Enforceable Through Title V Permit
25. The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64] Federally Enforceable Through Title V Permit
26. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

27. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-4261-41-3

EXPIRATION DATE: 11/30/2016

## EQUIPMENT DESCRIPTION:

DISTILLATION PROCESS CONSISTING OF ONE DE-GAS VESSEL, ONE BEER STRIPPER, ONE SIDE STRIPPER, ONE RECTIFIER, AND ONE MOLECULAR SIEVE, ALL SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-42 AND '-43)

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All vapors from the de-gas vessel, beer stripper, side rectifier, rectifier, and molecular sieve shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the distillation process - consisting of one de-gas vessel, one beer stripper, one side rectifier, one rectifier, and one molecular sieve - shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions from equipment leaks associated with the distillation process shall not exceed 3.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
10. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
11. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
13. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
14. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
15. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
16. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
17. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [40 CFR 64] Federally Enforceable Through Title V Permit
18. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [40 CFR 64] Federally Enforceable Through Title V Permit
19. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64] Federally Enforceable Through Title V Permit
20. The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64] Federally Enforceable Through Title V Permit
21. If the water flow rate through the fermentation scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the fermentation scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [40 CFR 64] Federally Enforceable Through Title V Permit
22. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64] Federally Enforceable Through Title V Permit
23. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-42-3

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 98,000 GALLON PROCESS CONDENSATE TANK COLLECTING WATER FROM THE FERMENTATION AND THE DISTILLATION SCRUBBERS SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-41 AND '-43)

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All vapors from the process condensate tank shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the process condensate tank shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions from equipment leaks associated with this process condensate tank shall not exceed 0.2 lb/day. [District Rule] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
19. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
20. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [40 CFR 64] Federally Enforceable Through Title V Permit
21. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [40 CFR 64] Federally Enforceable Through Title V Permit
22. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64] Federally Enforceable Through Title V Permit
23. The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64] Federally Enforceable Through Title V Permit
24. If the water flow rate through the fermentation scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the fermentation scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [40 CFR 64] Federally Enforceable Through Title V Permit
25. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

26. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-43-3

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

WET CAKE PROCESS CONSISTING OF ONE 135,600 GALLON WHOLE STILLAGE TANK, ONE CENTRIFUGE SYSTEM, ONE 100,000 GALLON THIN STILLAGE TANK, ONE EVAPORATOR, AND ONE 89,000 GALLON SYRUP TANK, ALL SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-41 AND '-42) AND MECHANICAL CONVEYORS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All vapors from the wet cake process shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber serving the wet cake process, consisting of one whole stillage tank, one centrifuge, one thin stillage tank, one evaporator and one syrup tank, shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions from equipment leaks associated with the wet cake process shall not exceed 2.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
19. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [40 CFR 64] Federally Enforceable Through Title V Permit
20. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [40 CFR 64] Federally Enforceable Through Title V Permit
21. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [40 CFR 64] Federally Enforceable Through Title V Permit
22. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 64] Federally Enforceable Through Title V Permit
23. The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 64] Federally Enforceable Through Title V Permit
24. If the water flow rate through the fermentation scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the fermentation scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

25. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64. [40 CFR 64] Federally Enforceable Through Title V Permit
26. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-44-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

WET CAKE STORAGE AND TRUCK LOADOUT OPERATION WITH MECHANICAL CONVEYORS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of wet cake processed shall not exceed either of the following limits: 1,150 ton-wet cake/day or 400,000 ton-wet cake/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emissions rate from the wet cake storage and truck loadout operation shall not exceed 0.0087 lb-VOC/ton-wet cake processed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Initial source testing to demonstrate compliance with the VOC emissions from the wet cake storage pile(s) shall be conducted within 120 days after initial start-up, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test. [District Rule 1081] Federally Enforceable Through Title V Permit
7. A source test plan shall be submitted for approval by the Permit Services Division and the Compliance Division at least 30 days prior to testing. The source test plan shall also include a description of how the conditions that will be used during the source test have been determined to be representative of the highest possible VOC emissions from the wet cake storage pile(s). [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
8. VOC emissions from the wet cake storage pile(s) shall be measured using EPA Method 204 and 204D. If it is determined that EPA Method 204 and 204D cannot be used to measure the VOC emissions from the wet cake storage piles, the VOC emissions shall be measured using SCAQMD methods 25.3, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1, or any other test method as approved by the District. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
9. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
10. During source testing, permittee shall maintain records of the amount of wet cake stored in the pile(s) tested (tons), or the size (ft<sup>3</sup>) and density (lb/ft<sup>3</sup>) of the wet cake pile(s) tested. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall maintain daily and annual records, in tons, of the quantity of wet cake processed through this storage and truck loadout operation. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-45-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

116,800 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK #1 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of 200-proof ethanol processed through this storage tank shall not exceed either of the following limits: 125,000 gallons/day or 40,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined maximum amount of 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46 shall not exceed 40,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emissions from the 200-proof ethanol storage tank shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions from equipment leaks associated with this 200-proof ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall maintain records of the daily and annual quantities, in gallons, of 200-proof ethanol processed through this storage tank and the combined annual quantity, in gallons, of the 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
9. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)] Federally Enforceable Through Title V Permit
10. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



11. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
24. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
25. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

26. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)] Federally Enforceable Through Title V Permit
27. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)] Federally Enforceable Through Title V Permit
28. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)] Federally Enforceable Through Title V Permit
29. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)] Federally Enforceable Through Title V Permit
30. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)] Federally Enforceable Through Title V Permit
32. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)] Federally Enforceable Through Title V Permit
33. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)] Federally Enforceable Through Title V Permit
34. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)] Federally Enforceable Through Title V Permit
35. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit
36. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
37. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit
38. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40 CFR 60.116b(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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39. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit
40. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
41. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)] Federally Enforceable Through Title V Permit
42. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)] Federally Enforceable Through Title V Permit
43. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)] Federally Enforceable Through Title V Permit
44. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)] Federally Enforceable Through Title V Permit
45. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
46. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
47. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

48. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
49. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
50. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
51. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
52. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-46-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

116,800 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK #2 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of 200-proof ethanol processed through this storage tank shall not exceed either of the following limits: 125,000 gallons/day or 40,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined maximum amount of 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46 shall not exceed 40,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emissions from the 200-proof ethanol storage tank shall not exceed 1.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions from equipment leaks associated with this 200-proof ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall maintain records of the daily and annual quantities, in gallons, of 200-proof ethanol processed through this storage tank and the combined annual quantity, in gallons, of the 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
9. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)] Federally Enforceable Through Title V Permit
10. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

11. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
24. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
25. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

26. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)] Federally Enforceable Through Title V Permit
27. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)] Federally Enforceable Through Title V Permit
28. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)] Federally Enforceable Through Title V Permit
29. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)] Federally Enforceable Through Title V Permit
30. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)] Federally Enforceable Through Title V Permit
32. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)] Federally Enforceable Through Title V Permit
33. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)] Federally Enforceable Through Title V Permit
34. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)] Federally Enforceable Through Title V Permit
35. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit
36. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
37. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit
38. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40 CFR 60.116b(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



39. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit
40. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
41. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)] Federally Enforceable Through Title V Permit
42. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)] Federally Enforceable Through Title V Permit
43. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)] Federally Enforceable Through Title V Permit
44. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)] Federally Enforceable Through Title V Permit
45. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
46. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
47. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



48. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
49. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
50. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
51. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
52. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-4261-47-2

EXPIRATION DATE: 11/30/2016

## EQUIPMENT DESCRIPTION:

350,000 GALLON INTERNAL FLOATING ROOF DENATURED ETHANOL STORAGE TANK #1 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of denatured ethanol processed through this storage tank shall not exceed either of the following limits: 131,250 gallons/day or 42,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined maximum amount of denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56 shall not exceed 42,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emissions from the denatured ethanol storage tank shall not exceed 1.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions from equipment leaks associated with this denatured ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall maintain records of the daily and annual quantities, in gallons, of denatured ethanol processed through this storage tank and the combined annual quantity, in gallons, of the denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
9. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)] Federally Enforceable Through Title V Permit
10. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rule 4623] Federally Enforceable Through Title V Permit
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
24. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
25. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

26. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)] Federally Enforceable Through Title V Permit
27. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)] Federally Enforceable Through Title V Permit
28. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)] Federally Enforceable Through Title V Permit
29. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)] Federally Enforceable Through Title V Permit
30. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)] Federally Enforceable Through Title V Permit
32. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)] Federally Enforceable Through Title V Permit
33. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)] Federally Enforceable Through Title V Permit
34. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)] Federally Enforceable Through Title V Permit
35. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit
36. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
37. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit
38. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40 CFR 60.116b(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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39. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit
40. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
41. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)] Federally Enforceable Through Title V Permit
42. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)] Federally Enforceable Through Title V Permit
43. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)] Federally Enforceable Through Title V Permit
44. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)] Federally Enforceable Through Title V Permit
45. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
46. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
47. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

48. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
49. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
50. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
51. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
52. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-48-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

74,300 GALLON INTERNAL FLOATING ROOF 190-PROOF (OFF-SPEC) ETHANOL STORAGE TANK WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The maximum amount of 190-proof ethanol processed through this storage tank shall not exceed either of the following limits: 125,000 gallons/day or 4,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emissions from this 190-proof ethanol storage tank shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC emissions from equipment leaks associated with this 190-proof ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The permittee shall maintain daily and annual records, in gallons, of the quantity of 190-proof ethanol processed through this storage tank. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
8. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)] Federally Enforceable Through Title V Permit
9. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)] Federally Enforceable Through Title V Permit
10. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



12. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
14. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
15. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
16. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
19. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
23. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
24. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)] Federally Enforceable Through Title V Permit
25. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)] Federally Enforceable Through Title V Permit
26. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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27. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)] Federally Enforceable Through Title V Permit
28. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)] Federally Enforceable Through Title V Permit
29. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)] Federally Enforceable Through Title V Permit
30. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)] Federally Enforceable Through Title V Permit
31. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)] Federally Enforceable Through Title V Permit
32. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)] Federally Enforceable Through Title V Permit
33. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)] Federally Enforceable Through Title V Permit
34. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit
35. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
36. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit
37. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)] Federally Enforceable Through Title V Permit
38. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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39. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
40. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)] Federally Enforceable Through Title V Permit
41. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)] Federally Enforceable Through Title V Permit
42. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)] Federally Enforceable Through Title V Permit
43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)] Federally Enforceable Through Title V Permit
44. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
45. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
46. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
47. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
48. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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49. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
50. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
51. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-49-5

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

COMPLIANT DORMANT DENATURED ETHANOL BOTTOM TRUCK LOADING RACK WITH DRY BREAK COUPLERS SERVED BY A 2.5 MMBTU/HR CECO ABATEMENT SYSTEMS, INC. REGENERATIVE THERMAL OXIDIZER (RTO) WITH A MAXON MODEL KINEDIZER LOW NOX BURNER, OR AN EQUIVALENT RTO (RTO SHARED WITH PERMITS C-4261-37, '-39, AND '-40)

## PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The feed supply lines from each storage tank that is connected to the loading rack shall be physically disconnected. [District Rule 2010] Federally Enforceable Through Title V Permit
3. Operators shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant emissions unit, at which time this permit will be administratively modified to removed the DEU references. [District Rule 2010] Federally Enforceable Through Title V Permit
4. A source test to demonstrate compliance with the indicated emission limits/control efficiencies shall be performed within 60 days of recommencing operation of this unit. [District Rule 2010] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. Vapor return hose(s) shall be attached whenever loading equipment operates. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All trucks loaded shall be inspected and determined to be vapor-tight such that all vapors are displaced into vapor return hoses during loading. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All vapors displaced from trucks during load-out operations shall be incinerated in the RTO. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The RTO shall only be fired on PUC regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The RTO shall maintain a minimum control efficiency of 99% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The maximum amount of denatured ethanol loaded into trucks or railcars shall not exceed either of the following limits: 320,000 gallons/day or 42,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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14. Controlled VOC emissions rate from the RTO serving the denatured ethanol loading rack shall not exceed 0.0873 lb/1,000 gal-denatured ethanol loaded, equivalent to 0.327 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Controlled VOC emissions rate from the RTO while serving the yeast propagation tank, fermentation process, beerwell storage tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NO<sub>x</sub>/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM<sub>10</sub>/MMBtu; or 0.00285 lb-SO<sub>x</sub>/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The maximum number of gasoline hose disconnects performed by the ethanol truck loading operation shall not exceed either of the following limits: 120 disconnects/day or 22,000 disconnects/year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The maximum liquid spillage/leaks from each hose disconnect shall not exceed 10 milliliters or 0.0173 lb-VOC/disconnect. [District Rule 2201] Federally Enforceable Through Title V Permit
19. VOC emissions from the denatured ethanol truck loading operation shall not exceed 2.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Upon recommencing operation, the permittee shall maintain daily and annual records, in gallons, of the quantity of denatured ethanol processed through the loading rack. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
21. Upon recommencing operation, the permittee shall maintain daily and annual records of the quantity of ethanol hose disconnects at the ethanol truck loading operation. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
22. Upon recommencing operation, source testing to demonstrate compliance with the 99% VOC control efficiency of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. After demonstrating compliance on three consecutive annual source tests, source testing shall no longer be required and continued compliance with the 99% control efficiency shall be demonstrated by maintaining the RTO above its minimum required operating temperature. Source testing shall be conducted while denatured ethanol is being processed through the loading rack. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Upon recommencing operation, source testing to determine the rate of VOC from the outlet of the RTO, expressed as lb-VOC/gal-ethanol produced, shall be conducted at least once every twelve (12) months. After demonstrating compliance on three consecutive annual source tests, source testing shall no longer be required and continued compliance with the outlet VOC emission rate shall be demonstrated by maintaining the RTO above its minimum required operating temperature. Source testing shall be conducted while denatured ethanol is being processed through the loading rack. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Source testing shall be conducted using EPA Method 18, 25 or 25A. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. During source testing, permittee shall maintain records of the amount of ethanol loaded into trucks, in gal-ethanol/hour. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
28. The RTO shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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29. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Upon recommencing operation, the permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400  $\sigma$ F limit. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
32. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
33. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
34. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
35. Upon recommencing operation, this operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455] Federally Enforceable Through Title V Permit
36. Upon recommencing operation, this operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
37. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-50-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

NON-COMPLIANT DORMANT 75.6 MMBTU/HR SUPERIOR MODEL SEMINOLE 3 PASS, OR EQUIVALENT, NATURAL GAS-FIRED BOILER #1 WITH AN ALZETA MODEL CSB 756, OR EQUIVALENT, ULTRA LOW-NOX BURNER, AND FORCED FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101 and 40 CFR 60.43c(e)(2)] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201 and 40 CFR 60.45c(c) and 60.47c(c)] Federally Enforceable Through Title V Permit
5. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu; 50 ppmvd CO @ 3% O<sub>2</sub> or 0.037 lb-CO/MMBtu; 0.006 lb-VOC/MMBtu; 0.0076 lb-PM<sub>10</sub>/MMBtu; or 0.00285 lb-SO<sub>x</sub>/MMBtu. [District Rules 2201, 4305, and 4306 and 40 CFR 60.43c(e)(2), 60.45c(c) and 60.47c(c)] Federally Enforceable Through Title V Permit
6. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
9. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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11. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
12. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
15. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. Permittee shall record monthly fuel consumption. [District Rule 1070 and 40 CFR 60.48c(c)] Federally Enforceable Through Title V Permit
20. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305 and 4306 and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-51-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

NON-COMPLIANT DORMANT 75.6 MMBTU/HR SUPERIOR MODEL SEMINOLE 3 PASS, OR EQUIVALENT, NATURAL GAS-FIRED BOILER #2 WITH AN ALZETA MODEL CSB 756, OR EQUIVALENT, ULTRA LOW-NOX BURNER, AND FORCED FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101 and 40 CFR 60.43c(e)(2)] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201 and 40 CFR 60.45c(c) and 60.47c(c)] Federally Enforceable Through Title V Permit
5. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu; 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu; 0.006 lb-VOC/MMBtu; 0.0076 lb-PM10/MMBtu; or 0.00285 lb-SOx/MMBtu. [District Rules 2201, 4305, and 4306 and 40 CFR 60.43c(e)(2), 60.45c(c) and 60.47c(c)] Federally Enforceable Through Title V Permit
6. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
9. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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11. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
12. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
15. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. Permittee shall record monthly fuel consumption. [District Rule 1070 and 40 CFR 60.48c(c)] Federally Enforceable Through Title V Permit
20. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305 and 4306 and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-53-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

265 HP JOHN DEERE MODEL JW6H-UF40 DIESEL-FIRED EMERGENCY INTERNAL COMBUSTION ENGINE  
POWERING A FIRE PUMP

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
4. Emissions from this IC engine shall not exceed any of the following limits: 5.70 g-NOx/bhp-hr, 0.25 g-CO/bhp-hr, or 0.08 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. Emissions from this IC engine shall not exceed 0.07 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
7. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4701 and 4702, and 17 CCR 93115 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-54-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

14,300 GPM INDUCED DRAFT COOLING TOWER SERVED BY A HIGH EFFICIENCY DRIFT ELIMINATOR

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012] Federally Enforceable Through Title V Permit
5. Drift eliminator drift rate shall not exceed 0.005%. [District Rule 2201] Federally Enforceable Through Title V Permit
6. PM10 emission rate from the cooling tower shall not exceed 8.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Compliance with the PM10 daily emission limit shall demonstrated as follows:  $PM10 \text{ lb/day} = \text{circulating water recirculation rate} \times \text{total dissolved solids concentration in the water} \times \text{design drift rate}$ . [District Rule 2201] Federally Enforceable Through Title V Permit
8. Compliance with the PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory within 120 days of initial operation and quarterly thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-55-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

35,000 GALLON TOTALLY ENCLOSED NATURAL GASOLINE STORAGE TANK (PRESSURE VESSEL) WITH A BOTTOM TRUCK UNLOADING RACK

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
4. The maximum amount of natural gasoline removed from this storage tank and mixed with ethanol shall not exceed either of the following limits: 6,250 gallons/day or 2,250,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. There shall be no VOC emissions from this natural gasoline storage tank. [District Rules 2201 and 4623 and 40 CFR 60.110(d)(2)] Federally Enforceable Through Title V Permit
6. The maximum number of natural gasoline hose disconnects performed by the natural gasoline truck unloading operation shall not exceed either of the following limits: 8 disconnects/day or 450 disconnects/year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The maximum liquid spillage/leaks from each hose disconnect shall not exceed 10 milliliters. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC emissions from the natural gasoline truck unloading operation shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emissions from equipment leaks associated with this natural gasoline storage tank shall not exceed 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall maintain daily and annual records, in gallons, of the quantity of natural gasoline removed from this storage tank and mixed with ethanol. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. The permittee shall maintain daily and annual records of the quantity of natural gasoline hose disconnects at the natural gasoline truck unloading operation. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
17. The operator shall meet operating, inspection and re-inspection, maintenance, process pressure relief device (PRD) and component identification requirements of District Rule 4455 (4/20/05) for all components containing or contacting VOC, except for those components specifically exempted in Sections 4.1 and 4.2. [District Rule 4455, 5.0] Federally Enforceable Through Title V Permit
18. The operator shall not use any component that leaks in excess of the allowable leak standards, except as follows. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
19. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
20. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4 and 40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
21. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 5.2.1 & 5.2.2; 40 CFR 60.482-2(a), (b) and (c); 40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
22. The operator shall inspect all components at least once every calendar quarter. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5 through 5.2.7. Components shall be inspected using EPA Method 21. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7; 40 CFR 60.482-2(a), (b) and (g); 40 CFR 60.482-7(a), (b), (g) and (h)] Federally Enforceable Through Title V Permit
23. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8; 40 CFR 60.482-7] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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24. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit
25. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11 and 40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
26. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
27. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected using EPA Method 21; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1 & 5.3.2; 40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
28. The tag shall include date and time of leak detection, date and time of leak measurement, indicate the leak concentration in ppmv (gas leaks), indicate whether it is a major or a minor leak (liquid leaks) and whether the leaking component is an essential component, unsafe-to-monitor component or critical component. [District Rule 4455, 5.3.3] Federally Enforceable Through Title V Permit
29. All component leaks shall be immediately minimized to the extent possible, but not later than one (1) hour after detection of leaks, in order to stop or reduce leakage to the atmosphere. As soon as practicable but not later than the time period specified in Table 3 of the rule, components that have been identified as leaking and have had emissions minimized to the extent possible but do not meet the applicable leak standards of the rule shall either be: 1) repaired or replaced, or 2) vented to a closed vent system, or 3) removed from operation. [District Rule 4455, 5.3.] Federally Enforceable Through Title V Permit
30. For any leaking component that is an essential or critical component, and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized but still exceeds any of the applicable leak standards of this rule, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
31. For any component that has incurred five repair actions for major gas leaks or major liquid leaks (any combination) within a continuous 12-month period, the operator shall as soon as practicable but not later than 12 after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of the rule, or 2) replace the component with Best Available Control Technology (BACT) equipment, as approved by the APCO, or 3) vent the component to an APCO approved closed vent system as defined in Section 3.0 of the rule, or 4) remove the component from operation. Inaccessible components, unsafe-to-monitor components, essential components, or critical components shall satisfy the above-listed requirement as soon as practicable but not later than the next turnaround or not later than two (2) years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes earlier. The APCO shall be notified in writing prior to the replacement or retrofitting of any component. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
32. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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33. The operator shall comply with the process PRD release notification and record keeping requirements specified in Section 6.3 of the rule. After a release from process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. [District Rule 4455, 5.4.3 and 5.4.4] Federally Enforceable Through Title V Permit
34. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and record keeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other APCO-approved system that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4455, 5.5] Federally Enforceable Through Title V Permit
35. The operator shall keep a copy of the OMP at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved Operator Management Plan. [District Rule 4455, 6.1.2] Federally Enforceable Through Title V Permit
36. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of the rule. [District Rule 4455, 6.2.1; 40 CFR 60.486(c)] Federally Enforceable Through Title V Permit
37. The operator shall notify the APCO, by telephone or other APCO-approved methods, of any process PRD release in excess of 500 pounds of VOC in a continuous 24-hour period, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. The operator shall submit a written report to the APCO within thirty (30) calendar days of following notification of process PRD release subject to 6.3.1 of the rule. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of the rule. [District Rule 4455, 6.3] Federally Enforceable Through Title V Permit
38. Measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument, calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. Operator shall keep a record of each instrument calibration in accordance with requirements as set forth Section 6.2.3 of the rule. [District Rule 4455, 6.4; 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
39. Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)] Federally Enforceable Through Title V Permit
40. Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)] Federally Enforceable Through Title V Permit
41. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)] Federally Enforceable Through Title V Permit
42. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1(c)] Federally Enforceable Through Title V Permit
43. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

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44. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b), and District Rule 2201] Federally Enforceable Through Title V Permit
45. When a leak is detected for each PLLS, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
46. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
47. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e), and District Rule 2201] Federally Enforceable Through Title V Permit
48. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
49. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [District Rule 40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit
50. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
51. Unless exempt under 40 CFR 60.482-3, 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 60.482-3(h) and (i). The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3(b)(1), (2), or (3). [40 CFR 60.482-3(a), (b), and (c)] Federally Enforceable Through Title V Permit
52. If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. 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. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3(d), (e), and (f)] Federally Enforceable Through Title V Permit
53. If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)] Federally Enforceable Through Title V Permit

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54. Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3(i)(1) and (2). [40 CFR 60.482-3(i), and District Rule 2201] Federally Enforceable Through Title V Permit
55. Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3(j)] Federally Enforceable Through Title V Permit
56. 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 100 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a), and District Rule 2201] Federally Enforceable Through Title V Permit
57. 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 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b), and District Rule 2201] Federally Enforceable Through Title V Permit
58. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
59. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
60. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
61. 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 60.482-1(c). 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. 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 this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
62. 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. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
63. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
64. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit

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65. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7(a) and (b), and District Rule 2201] Federally Enforceable Through Title V Permit
66. Any valve in gas/vapor service or in light liquid service 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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
67. When a leak is detected for any valve in gas/vapor service or in light liquid service, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
68. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f), and District Rule 2201] Federally Enforceable Through Title V Permit
69. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
70. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
71. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8(a) and (b); and District Rule 2201] Federally Enforceable Through Title V Permit
72. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, 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 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
73. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

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74. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
75. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit
76. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g), and District Rule 2201] Federally Enforceable Through Title V Permit
77. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
78. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
79. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
80. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
81. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
82. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
83. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.483-1 and 60.483-2] Federally Enforceable Through Title V Permit
84. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VV. [40 CFR 60.484(a)] Federally Enforceable Through Title V Permit

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85. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit
86. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppmv of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 100 ppmv methane or n-hexane for valves and connectors and 500 ppmv methane or n-hexane for pumps and compressor seals. [40 CFR 60.485(b); and District Rule 2201] Federally Enforceable Through Title V Permit
87. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and 500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485(c); and District Rule 2201] Federally Enforceable Through Title V Permit
88. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
89. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
90. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
91. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
92. An owner or operator of more than one affected facility subject to the provisions Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
93. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, 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 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

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94. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 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 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals; 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 (or designate) whose decision it was that 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; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c); and District Rule 2201] Federally Enforceable Through Title V Permit
95. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
96. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with  $\pm$  60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i),  $\pm$  60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
97. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
98. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
99. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
100. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

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101. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
102. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV. [40 CFR 60.486(k)] Federally Enforceable Through Title V Permit
103. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 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 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (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 in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
104. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
105. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VV 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 60.487(e)] Federally Enforceable Through Title V Permit
106. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
107. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-4261-56-1

EXPIRATION DATE: 11/30/2016

**EQUIPMENT DESCRIPTION:**

350,000 GALLON INTERNAL FLOATING ROOF DENATURED ETHANOL STORAGE TANK #2 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
4. The maximum amount of denatured ethanol processed through this storage tank shall not exceed either of the following limits: 131,250 gallons/day or 42,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined maximum amount of denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56 shall not exceed 42,000,000 gallons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emissions from the denatured ethanol storage tank shall not exceed 1.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emissions from equipment leaks associated with this denatured ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of the daily and annual quantities, in gallons, of denatured ethanol processed through this storage tank and the combined annual quantity, in gallons, of the denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
10. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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11. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)] Federally Enforceable Through Title V Permit
12. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rule 4623] Federally Enforceable Through Title V Permit
13. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
17. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
21. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
23. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
25. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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26. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)] Federally Enforceable Through Title V Permit
27. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)] Federally Enforceable Through Title V Permit
28. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)] Federally Enforceable Through Title V Permit
29. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)] Federally Enforceable Through Title V Permit
30. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)] Federally Enforceable Through Title V Permit
32. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)] Federally Enforceable Through Title V Permit
33. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)] Federally Enforceable Through Title V Permit
34. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)] Federally Enforceable Through Title V Permit
36. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623] Federally Enforceable Through Title V Permit
37. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
38. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit

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39. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)] Federally Enforceable Through Title V Permit
40. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)] Federally Enforceable Through Title V Permit
41. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)] Federally Enforceable Through Title V Permit
42. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)] Federally Enforceable Through Title V Permit
43. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)] Federally Enforceable Through Title V Permit
44. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)] Federally Enforceable Through Title V Permit
45. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)] Federally Enforceable Through Title V Permit
46. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
47. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

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48. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
49. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
50. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
51. The operator shall meet operating, inspection and re-inspection, maintenance, process pressure relief device (PRD) and component identification requirements of District Rule 4455 (4/20/05) for all components containing or contacting VOC, except for those components specifically exempted in Sections 4.1 and 4.2. [District Rule 4455, 5.0] Federally Enforceable Through Title V Permit
52. The operator shall not use any component that leaks in excess of the allowable leak standards, except as follows. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
53. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
54. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4 and 40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
55. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 5.2.1 & 5.2.2; 40 CFR 60.482-2(a), (b) and (c); 40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
56. The operator shall inspect all components at least once every calendar quarter. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5 through 5.2.7. Components shall be inspected using EPA Method 21. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7; 40 CFR 60.482-2(a), (b) and (g); 40 CFR 60.482-7(a), (b), (g) and (h)] Federally Enforceable Through Title V Permit
57. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8; 40 CFR 60.482-7] Federally Enforceable Through Title V Permit

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58. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 and 5.2.10] Federally Enforceable Through Title V Permit
59. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11 and 40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
60. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
61. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected using EPA Method 21; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1 & 5.3.2; 40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
62. The tag shall include date and time of leak detection, date and time of leak measurement, indicate the leak concentration in ppmv (gas leaks), indicate whether it is a major or a minor leak (liquid leaks) and whether the leaking component is an essential component, unsafe-to-monitor component or critical component. [District Rule 4455, 5.3.3] Federally Enforceable Through Title V Permit
63. All component leaks shall be immediately minimized to the extent possible, but not later than one (1) hour after detection of leaks, in order to stop or reduce leakage to the atmosphere. As soon as practicable but not later than the time period specified in Table 3 of the rule, components that have been identified as leaking and have had emissions minimized to the extent possible but do not meet the applicable leak standards of the rule shall either be: 1) repaired or replaced, or 2) vented to a closed vent system, or 3) removed from operation. [District Rule 4455, 5.3.] Federally Enforceable Through Title V Permit
64. For any leaking component that is an essential or critical component, and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized but still exceeds any of the applicable leak standards of this rule, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
65. For any component that has incurred five repair actions for major gas leaks or major liquid leaks (any combination) within a continuous 12-month period, the operator shall as soon as practicable but not later than 12 after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of the rule, or 2) replace the component with Best Available Control Technology (BACT) equipment, as approved by the APCO, or 3) vent the component to an APCO approved closed vent system as defined in Section 3.0 of the rule, or 4) remove the component from operation. Inaccessible components, unsafe-to-monitor components, essential components, or critical components shall satisfy the above-listed requirement as soon as practicable but not later than the next turnaround or not later than two (2) years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes earlier. The APCO shall be notified in writing prior to the replacement or retrofitting of any component. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
66. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit

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67. The operator shall comply with the process PRD release notification and record keeping requirements specified in Section 6.3 of the rule. After a release from process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. [District Rule 4455, 5.4.3 and 5.4.4] Federally Enforceable Through Title V Permit
68. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and record keeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other APCO-approved system that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4455, 5.5] Federally Enforceable Through Title V Permit
69. The operator shall keep a copy of the OMP at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved Operator Management Plan. [District Rule 4455, 6.1.2] Federally Enforceable Through Title V Permit
70. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of the rule. [District Rule 4455, 6.2.1; 40 CFR 60.486(c)] Federally Enforceable Through Title V Permit
71. The operator shall notify the APCO, by telephone or other APCO-approved methods, of any process PRD release in excess of 500 pounds of VOC in a continuous 24-hour period, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. The operator shall submit a written report to the APCO within thirty (30) calendar days of following notification of process PRD release subject to 6.3.1 of the rule. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of the rule. [District Rule 4455, 6.3] Federally Enforceable Through Title V Permit
72. Measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument, calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. Operator shall keep a record of each instrument calibration in accordance with requirements as set forth Section 6.2.3 of the rule. [District Rule 4455, 6.4; 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
73. Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)] Federally Enforceable Through Title V Permit
74. Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)] Federally Enforceable Through Title V Permit
75. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)] Federally Enforceable Through Title V Permit
76. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1(c)] Federally Enforceable Through Title V Permit
77. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

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78. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b), and District Rule 2201] Federally Enforceable Through Title V Permit
79. When a leak is detected for each PLLS, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
80. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
81. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e), and District Rule 2201] Federally Enforceable Through Title V Permit
82. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
83. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [District Rule 40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit
84. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
85. Unless exempt under 40 CFR 60.482-3, 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 60.482-3(h) and (i). The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3(b)(1), (2), or (3). [40 CFR 60.482-3(a), (b), and (c)] Federally Enforceable Through Title V Permit
86. If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. 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. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3(d), (e), and (f)] Federally Enforceable Through Title V Permit
87. If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)] Federally Enforceable Through Title V Permit

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88. Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3(i)(1) and (2). [40 CFR 60.482-3(i), and District Rule 2201] Federally Enforceable Through Title V Permit
89. Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3(j)] Federally Enforceable Through Title V Permit
90. 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 100 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a), and District Rule 2201] Federally Enforceable Through Title V Permit
91. 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 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b), and District Rule 2201] Federally Enforceable Through Title V Permit
92. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
93. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
94. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
95. 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 60.482-1(c). 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. 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 this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
96. 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. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
97. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
98. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit

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99. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7(a) and (b), and District Rule 2201] Federally Enforceable Through Title V Permit
100. Any valve in gas/vapor service or in light liquid service 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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
101. When a leak is detected for any valve in gas/vapor service or in light liquid service, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
102. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f), and District Rule 2201] Federally Enforceable Through Title V Permit
103. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
104. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
105. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8(a) and (b); and District Rule 2201] Federally Enforceable Through Title V Permit
106. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, 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 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
107. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

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108. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
109. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit
110. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g), and District Rule 2201] Federally Enforceable Through Title V Permit
111. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
112. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
113. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
114. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
115. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
116. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
117. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.483-1 and 60.483-2] Federally Enforceable Through Title V Permit
118. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VV. [40 CFR 60.484(a)] Federally Enforceable Through Title V Permit

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119. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit
120. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppmv of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 100 ppmv methane or n-hexane for valves and connectors and 500 ppmv methane or n-hexane for pumps and compressor seals. [40 CFR 60.485(b); and District Rule 2201] Federally Enforceable Through Title V Permit
121. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and 500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485(c); and District Rule 2201] Federally Enforceable Through Title V Permit
122. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
123. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
124. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
125. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
126. An owner or operator of more than one affected facility subject to the provisions Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
127. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, 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 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

128. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 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 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals; 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 (or designate) whose decision it was that 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; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c); and District Rule 2201] Federally Enforceable Through Title V Permit
129. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
130. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with <sup>1</sup> 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), <sup>1</sup> 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
131. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
132. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
133. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
134. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

135. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
136. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV. [40 CFR 60.486(k)] Federally Enforceable Through Title V Permit
137. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 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 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (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 in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
138. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
139. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VV 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 60.487(e)] Federally Enforceable Through Title V Permit
140. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
141. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-57-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN HAMMERMILL OPERATION #3 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-34 AND 35); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Visible emissions from the exhaust of the baghouse(s) serving the hammermill and associated conveying equipment shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Grain inlet conveyors at the grain hammermill operation shall be fully enclosed and sealed to the hammermill. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Grain discharge conveyors from the hammermill(s) to the slurry tank shall be fully enclosed and sealed to the hammermill and the slurry tank cover. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Replacement bags numbering at least 10% of the total number of bags in each baghouse shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum amount of grain processed through each hammermill shall not exceed 1,000 tons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined maximum amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57 shall not exceed 432,000 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

14. Controlled PM10 emissions from the hammermilling of the grain shall not exceed 0.012 lb/ton-grain processed. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00068 lb/ton-grain conveyed. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The permittee shall maintain daily records of the amount of grain processed through the hammermill, in tons, and annual records of the combined amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Differential operating pressure shall be monitored and recorded on each day that each baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-4261-58-1

EXPIRATION DATE: 11/30/2016

**EQUIPMENT DESCRIPTION:**

POWDER LIME PNEUMATIC RECEIVING AND STORAGE OPERATION CONSISTING OF A 1,309 CUBIC FOOT STORAGE SILO SERVED BY A WAM MODEL FC.J.24.V.PP BIN VENT FILTER

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, 5% opacity. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The bin vent filter shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The bin vent filter cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Material removed from the bin vent filter shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Records of all maintenance of the bin vent filter, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
8. A spare filter shall be maintained on the premises at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum amount of lime loaded into this silo shall not exceed the following limits: 32 tons/day and 300 tons/year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain daily and annual records of the amount of lime loaded into this silo. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Records shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

**Attachment B**  
**Detailed Facility List**

**Detailed Facility Report**

For Facility=4261

Sorted by Facility Number and Permit Number

PACIFIC ETHANOL MADERA LLC 31470 AVENUE 12 MADERA, CA 93637	FAC #	C 4261	TYPE:	TitleV	EXPIRE ON:	11/30/2016
	STATUS:	A	TOXIC ID:		AREA:	1 /
	TELEPHONE:				INSP. DATE:	06/13

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-4261-29-0	1,115 total electric hp	3020-01 G	1	815.00	815.00	A	TRUCK AND RAILCAR GRAIN RECEIVING AND STORAGE OPERATION INCLUDING A RECEIVING SHED, RAILCAR AND TRUCK RECEIVING HOPPERS, A RECEIVING DRAG CONVEYOR, A RECEIVING LEG (ELEVATOR), ALL SERVED BY A CUSTOM MADE AGRI-SYSTEM BAGHOUSE; AND EIGHT 165,302 BUSHEL CAPACITY GRAIN SILOS, AND THREE 48,227 BUSHEL CAPACITY INTERSTICE BINS ALL SERVED BY AGRI SYSTEM BIN VENT FILTERS
C-4261-30-0	904 total electric hp	3020-01 G	1	815.00	815.00	A	GRAIN FLAKING (ROLLING) AND COOLING OPERATION INCLUDING SURGE HOPPERS, TWO GRAIN SCALPERS, TWO ELEVATORS, THREE COUNTER FLOW COOLERS, AND THREE ROLLER (FLAKING) MILLS, EACH SERVED BY A BUHLER MODEL PDAZ COMPACT SEPARATOR
C-4261-31-0	81 electric hp	3020-01 C	1	197.00	197.00	D	GRAIN GRINDING OPERATION INCLUDING ONE SURGE HOPPER, ONE HAMMERMILL, AND ENCLOSED CONVEYORS
C-4261-32-0	140 electric hp	3020-01 D	1	314.00	314.00	A	FLAKED GRAIN STORAGE OPERATION CONSISTING OF THREE 544 TON CAPACITY LOADOUT BINS, THREE 608 TON CAPACITY LOADOUT BINS, TWO 301 TON CAPACITY LOADOUT BINS, ALL SERVED BY AGRI SYSTEM BIN VENT FILTERS; AND TWO ELEVATORS AND TWO FILL CONVEYORS
C-4261-33-0	30 electric hp	3020-01 B	1	117.00	117.00	A	GRAIN TRUCK LOADING OPERATION CONSISTING OF ENCLOSED CONVEYORS AND, A LIQUID APPLICATOR LOADOUT CONVEYOR, AND FLEXIBLE LOADOUT SPOUT
C-4261-34-1	800 total electric hp	3020-01 G	1	815.00	815.00	A	GRAIN HAMMERMILL OPERATION #1 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-35 AND '57); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS
C-4261-35-1	800 total electric hp	3020-01 G	1	815.00	815.00	A	GRAIN HAMMERMILL OPERATION #2 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-34 AND '57); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS
C-4261-36-3	12,000 Gallons	3020-05 B	1	93.00	93.00	A	ONE 12,000 GALLON SLURRY TANK SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-38, '-41, '-42 AND '-43 [COMPLIANT DORMANT EMISSIONS UNIT]

**Detailed Facility Report**

For Facility=4261

Sorted by Facility Number and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-4261-37-5	103,500 gallons	3020-05 E	1	246.00	246.00	A	COMPLIANT DORMANT 103,500 GALLON YEAST PROPAGATION TANK SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-39 AND '-40. RTO ALSO SHARED WITH C-4261-49)
C-4261-38-3	70,800 GALLONS	3020-05 D	1	185.00	185.00	A	ONE 70,800 GALLON LIQUEFACTION TANK SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-41, '-42 AND '-43)
C-4261-39-3	1,680,000 GALLONS	3020-05 G	1	382.00	382.00	A	FERMENTATION PROCESS CONSISTING OF FOUR IDENTICAL 420,000 GALLON FERMENTATION TANKS ALL SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-37 AND '-40. RTO ALSO SHARED WITH C-4261-49)
C-4261-40-3	550,000 GALLONS	3020-05 F	1	301.00	301.00	A	ONE 550,000 GALLON FIXED ROOF BEERWELL PROCESS TANK SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-37 AND '-39. RTO ALSO SHARED WITH C-4261-49)
C-4261-41-2	215 HP	3020-01 E	1	412.00	412.00	A	DISTILLATION PROCESS CONSISTING OF ONE DE-GAS VESSEL, ONE BEER STRIPPER, ONE SIDE STRIPPER, ONE RECTIFIER, AND ONE MOLECULAR SIEVE, ALL SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-42 AND '-43)
C-4261-42-2	98,000 GALLONS	3020-05 D	1	185.00	185.00	A	ONE 98,000 GALLON PROCESS CONDENSATE TANK COLLECTING WATER FROM THE FERMENTATION AND THE DISTILLATION SCRUBBERS SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-41 AND '-43)
C-4261-43-2	324,600 GALLONS	3020-05 E	1	246.00	246.00	A	WET CAKE PROCESS CONSISTING OF ONE 135,600 GALLON WHOLE STILLAGE TANK, ONE CENTRIFUGE SYSTEM, ONE 100,000 GALLON THIN STILLAGE TANK, ONE EVAPORATOR, AND ONE 89,000 GALLON SYRUP TANK, ALL SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-41 AND '-42) AND MECHANICAL CONVEYORS
C-4261-44-0	32.5 total electric hp	3020-01 B	1	117.00	117.00	A	WET CAKE STORAGE AND TRUCK LOADOUT OPERATION WITH MECHANICAL CONVEYORS
C-4261-45-1	116,800 gallons	3020-05 E	1	246.00	246.00	A	116,800 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK #1 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM
C-4261-46-1	116,800 gallons	3020-05 E	1	246.00	246.00	A	116,800 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK #2 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

**Detailed Facility Report**

For Facility=4261

Sorted by Facility Number and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-4261-47-1	350,000 gallons	3020-05 E	1	246.00	246.00	A	350,000 GALLON INTERNAL FLOATING ROOF DENATURED ETHANOL STORAGE TANK #1 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM
C-4261-48-1	74,300 gallons	3020-05 D	1	185.00	185.00	A	74,300 GALLON INTERNAL FLOATING ROOF 190-PROOF (OFF-SPEC) ETHANOL STORAGE TANK WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM
C-4261-49-4	2.5 MMBtu/hr	3020-02 F	1	607.00	607.00	A	COMPLIANT DORMANT DENATURED ETHANOL BOTTOM TRUCK LOADING RACK WITH DRY BREAK COUPLERS SERVED BY A 2.5 MMBTU/HR CECO ABATEMENT SYSTEMS, INC. REGENERATIVE THERMAL OXIDIZER (RTO) WITH A MAXON MODEL KINEDIZER LOW NOX BURNER, OR AN EQUIVALENT RTO (RTO SHARED WITH PERMITS C-4261-37, '-39, AND '-40)
C-4261-50-1	75,600 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	NON-COMPLIANT DORMANT 75.6 MMBTU/HR SUPERIOR MODEL SEMINOLE 3 PASS NATURAL GAS-FIRED BOILER #1 WITH AN ALZETA MODEL CSB 756 ULTRA LOW-NOX BURNER, AND FORCED FLUE GAS RECIRCULATION
C-4261-51-1	75,600 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	NON-COMPLIANT DORMANT 75.6 MMBTU/HR SUPERIOR MODEL SEMINOLE 3 PASS NATURAL GAS-FIRED BOILER #2 WITH AN ALZETA MODEL CSB 756 ULTRA LOW-NOX BURNER, AND FORCED FLUE GAS RECIRCULATION
C-4261-53-0	265 bhp	3020-10 C	1	240.00	240.00	A	265 HP JOHN DEERE MODEL JW6H-UF40 DIESEL-FIRED EMERGENCY INTERNAL COMBUSTION ENGINE POWERING A FIRE PUMP
C-4261-54-0	200 total electric hp	3020-01 E	1	412.00	412.00	A	14,300 GPM INDUCED DRAFT COOLING TOWER SERVED BY A HIGH EFFICIENCY DRIFT ELIMINATOR
C-4261-55-0	35,000 gallons	3020-05 C	1	135.00	135.00	A	35,000 GALLON TOTALLY ENCLOSED NATURAL GASOLINE STORAGE TANK (PRESSURE VESSEL) WITH A BOTTOM TRUCK UNLOADING RACK
C-4261-56-0	350,000 gallons	3020-05 E	1	246.00	246.00	A	350,000 GALLON INTERNAL FLOATING ROOF DENATURED ETHANOL STORAGE TANK #2 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM
C-4261-57-0	800 total electric hp	3020-01 G	1	815.00	815.00	A	GRAIN HAMMERMILL OPERATION #3 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-34 AND 35); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS
C-4261-58-0	9,792 gallons	3020-05 B	1	93.00	93.00	A	POWDER LIME PNEUMATIC RECEIVING AND STORAGE OPERATION CONSISTING OF A 1,309 CUBIC FOOT STORAGE SILO SERVED BY A WAM MODEL FC.J.24.V.PP BIN VENT FILTER

Number of Facilities Reported: 1

**Attachment C**  
**Permits to Operate**

# San Joaquin Valley Air Pollution Control District

FACILITY: C-4261-0-0

EXPIRATION DATE: 11/30/2016

## FACILITY-WIDE REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The operator shall meet operating, inspection and re-inspection, maintenance, process pressure relief device (PRD) and component identification requirements of District Rule 4455 (4/20/05) for all components containing or contacting VOC, except for those components specifically exempted in Sections 4.1 and 4.2. [District Rule 4455, 5.0]
3. The operator shall not use any component that leaks in excess of the allowable leak standards, except as follows. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1]
4. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2]
5. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4 and 40 CFR 60.482-4(a)]
6. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2; 40 CFR 60.482-2(a), (b) and (c); 40 CFR 60.482-7(d) and (e)]
7. The operator shall inspect all components at least once every calendar quarter. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5 through 5.2.7. Components shall be inspected using EPA Method 21. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7; 40 CFR 60.482-2(a), (b) and (g); 40 CFR 60.482-7(a), (b), (g) and (h)]
8. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8; 40 CFR 60.482-7]
9. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 and 5.2.10]

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: PACIFIC ETHANOL MADERA LLC  
Location: 31470 AVENUE 12, MADERA, CA 93637  
C-4261-0-0: Oct 8 2012 2:35PM - YOSHIMUJ

10. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11 and 40 CFR 60.482-4(b)]
11. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12]
12. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected using EPA Method 21; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1 & 5.3.2; 40 CFR 60.486(b)]
13. The tag shall include date and time of leak detection, date and time of leak measurement, indicate the leak concentration in ppmv (gas leaks), indicate whether it is a major or a minor leak (liquid leaks) and whether the leaking component is an essential component, unsafe-to-monitor component or critical component. [District Rule 4455, 5.3.3]
14. All component leaks shall be immediately minimized to the extent possible, but not later than one (1) hour after detection of leaks, in order to stop or reduce leakage to the atmosphere. As soon as practicable but not later than the time period specified in Table 3 of the rule, components that have been identified as leaking and have had emissions minimized to the extent possible but do not meet the applicable leak standards of the rule shall either be: 1) repaired or replaced, or 2) vented to a closed vent system, or 3) removed from operation. [District Rule 4455, 5.3.]
15. For any leaking component that is an essential or critical component, and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized but still exceeds any of the applicable leak standards of this rule, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6]
16. For any component that has incurred five repair actions for major gas leaks or major liquid leaks (any combination) within a continuous 12-month period, the operator shall as soon as practicable but not later than 12 after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of the rule, or 2) replace the component with Best Available Control Technology (BACT) equipment, as approved by the APCO, or 3) vent the component to an APCO approved closed vent system as defined in Section 3.0 of the rule, or 4) remove the component from operation. Inaccessible components, unsafe-to-monitor components, essential components, or critical components shall satisfy the above-listed requirement as soon as practicable but not later than the next turnaround or not later than two (2) years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes earlier. The APCO shall be notified in writing prior to the replacement or retrofitting of any component. [District Rule 4455, 5.3.7]
17. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1]
18. The operator shall comply with the process PRD release notification and record keeping requirements specified in Section 6.3 of the rule. After a release from process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. [District Rule 4455, 5.4.3 and 5.4.4]
19. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and record keeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other APCO-approved system that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4455, 5.5]

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20. The operator shall keep a copy of the OMP at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved Operator Management Plan. [District Rule 4455, 6.1.2]
21. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of the rule. [District Rule 4455, 6.2.1; 40 CFR 60.486(c)]
22. The operator shall notify the APCO, by telephone or other APCO-approved methods, of any process PRD release in excess of 500 pounds of VOC in a continuous 24-hour period, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. The operator shall submit a written report to the APCO within thirty (30) calendar days of following notification of process PRD release subject to 6.3.1 of the rule. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of the rule. [District Rule 4455, 6.3]
23. Measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument, calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. Operator shall keep a record of each instrument calibration in accordance with requirements as set forth Section 6.2.3 of the rule. [District Rule 4455, 6.4; 40 CFR 60.485(b)]
24. Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)]
25. Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)]
26. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)]
27. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1(c)]
28. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)]
29. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)]
30. When a leak is detected for each PLLS, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)]
31. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)]
32. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)]

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33. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)]
34. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [District Rule 40 CFR 60.482-2(g)]
35. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)]
36. Unless exempt under 40 CFR 60.482-3, 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 60.482-3(h) and (i). The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3(b)(1), (2), or (3). [40 CFR 60.482-3(a), (b), and (c)]
37. If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. 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. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3(d), (e), and (f)]
38. If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)]
39. Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3(i)(1) and (2). [40 CFR 60.482-3(i)]
40. Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3(j)]
41. 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 100 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)]
42. 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 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)]
43. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)]

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44. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)]
45. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)]
46. 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 60.482-1(c). 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. 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 this condition at all other times. [40 CFR 60.482-6(a) and (c)]
47. 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. [40 CFR 60.482-6(b)]
48. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)]
49. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)]
50. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7(a) and (b)]
51. Any valve in gas/vapor service or in light liquid service 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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)]
52. When a leak is detected for any valve in gas/vapor service or in light liquid service, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)]
53. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)]
54. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)]

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55. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)]
56. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8(a) and (b)]
57. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, 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 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)]
58. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)]
59. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)]
60. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)]
61. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)]
62. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)]
63. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)]
64. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)]
65. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)]

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66. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)]
67. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)]
68. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.483-1 and 60.483-2]
69. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VV. [40 CFR 60.484(a)]
70. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)]
71. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppmv of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 100 ppmv methane or n-hexane for valves and connectors and 500 ppmv methane or n-hexane for pumps and compressor seals. [40 CFR 60.485(b)]
72. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and 500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485(c)]
73. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)]
74. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)]

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

75. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)]
76. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)]
77. An owner or operator of more than one affected facility subject to the provisions Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)]
78. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, 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 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)]
79. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 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 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals; 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 (or designate) whose decision it was that 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; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c)]
80. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)]
81. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with <sup>±</sup> 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), <sup>±</sup> 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)]

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



82. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)]
83. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)]
84. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)]
85. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)]
86. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)]
87. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV. [40 CFR 60.486(k)]
88. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 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 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (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 in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)]
89. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)]
90. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VV 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 60.487(e)]
91. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-29-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

TRUCK AND RAILCAR GRAIN RECEIVING AND STORAGE OPERATION INCLUDING A RECEIVING SHED, RAILCAR AND TRUCK RECEIVING HOPPERS, A RECEIVING DRAG CONVEYOR, A RECEIVING LEG (ELEVATOR), ALL SERVED BY A CUSTOM MADE AGRI-SYSTEM BAGHOUSE; AND EIGHT 165,302 BUSHEL CAPACITY GRAIN SILOS, AND THREE 48,227 BUSHEL CAPACITY INTERSTICE BINS ALL SERVED BY AGRI SYSTEM BIN VENT FILTERS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Visible emissions from the exhaust of the baghouse serving the grain receiving operation and from the exhaust of the bin vent filters serving the grain storage silos shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The baghouse and bin vent filters shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
6. The baghouse and bin vent filters cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
7. For each type of baghouse and bin vent filter, a spare set of bags shall be maintained on the premises at all times. [District Rule 2201]
8. Material removed from the dust collectors shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
9. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
10. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201]
11. Grain conveyors at the grain railcar and truck receiving operation shall be fully enclosed. [District Rule 2201]
12. The maximum amount of grain received and transferred to storage shall not exceed either of the following limits: 18,000 tons/day or 432,000 tons/year. [District Rule 2201]
13. Controlled PM10 emissions (controlled and fugitive combined) from the truck and railcar grain receiving operation shall not exceed 0.00052 lb-PM10/ton-grain received. [District Rule 2201]
14. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain conveyed. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



15. The permittee shall maintain daily and annual records of the amount of grain received and transferred to storage, in tons. [District Rule 2201]
16. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
17. Records of all maintenance of the baghouse and bin vent filters, including all change outs of filter media, shall be maintained. [District Rule 2201]
18. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-30-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN FLAKING (ROLLING) AND COOLING OPERATION INCLUDING SURGE HOPPERS, TWO GRAIN SCALPERS, TWO ELEVATORS, THREE COUNTER FLOW COOLERS, AND THREE ROLLER (FLAKING) MILLS, EACH SERVED BY A BUHLER MODEL PDAZ COMPACT SEPARATOR

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Grain inlet and discharge conveyors at the grain flaking and cooling operation shall be fully enclosed and sealed to the grinder. [District Rule 2201]
5. The dust separator system shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
6. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
7. The maximum amount of grain processed through the grain flaking and cooling operation shall not exceed of the following limits: 2,160 tons/day or 600,000 tons/year. [District Rule 2201]
8. Controlled PM10 emissions from the flaking and cooling of the grain shall not exceed 0.0125 lb-PM10/ton-grain processed. [District Rule 2201]
9. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain processed. [District Rule 2201]
10. The permittee shall maintain daily and annual records of the amount of grain processed through this operation, in tons. [District Rule 2201]
11. Records of all maintenance of the compact separators shall be maintained. [District Rule 2201]
12. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-32-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

FLAKED GRAIN STORAGE OPERATION CONSISTING OF THREE 544 TON CAPACITY LOADOUT BINS, THREE 608 TON CAPACITY LOADOUT BINS, TWO 301 TON CAPACITY LOADOUT BINS, ALL SERVED BY AGRI SYSTEM BIN VENT FILTERS; AND TWO ELEVATORS AND TWO FILL CONVEYORS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. Visible emissions from the exhaust of the bin vent filters serving the grain storage silos shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201 and 4101]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Grain inlet and discharge conveyors at the grain flaking and storage operation shall be fully enclosed. [District Rule 2201]
5. The bin vent filters shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
6. The bin vent filters cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
7. For each type of bin vent filter, a spare set of bags shall be maintained on the premises at all times. [District Rule 2201]
8. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
9. The maximum amount of grain processed through the flaked grain storage operation shall not exceed 2,160 tons/day. [District Rule 2201]
10. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain conveyed. [District Rule 2201]
11. The permittee shall maintain daily records of the amount of grain processed through flaked grain storage operation, in tons. [District Rule 2201]
12. Records of all maintenance of the bin vent filters, including all change outs of filter media, shall be maintained [District Rule 2201]
13. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-33-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN TRUCK LOADING OPERATION CONSISTING OF ENCLOSED CONVEYORS AND, A LIQUID APPLICATOR LOADOUT CONVEYOR, AND FLEXIBLE LOADOUT SPOUT

## **PERMIT UNIT REQUIREMENTS**

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Grain conveyors at the grain truck loading operation shall be fully enclosed from the silo to the loading spout. [District Rule 2201]
4. The maximum amount of grain processed through the flaked grain truck loadout operation shall not exceed 2,000 tons/day. [District Rule 2201]
5. Controlled PM10 emissions from the grain truck loadout operation shall not exceed 0.0008 lb-PM10/ton-grain loaded out. [District Rule 2201]
6. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00034 lb-PM10/ton-grain conveyed. [District Rule 2201]
7. The permittee shall maintain daily records of the amount of grain loaded out into trucks, in tons. [District Rule 2201]
8. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-34-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN HAMMERMILL OPERATION #1 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-35 AND '-57); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. Visible emissions from the exhaust of the baghouse(s) serving the hammermill and associated conveying equipment shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Grain inlet conveyors at the grain hammermill operation shall be fully enclosed and sealed to the hammermill. [District Rule 2201]
5. Grain discharge conveyors from the hammermill(s) to the slurry tank shall be fully enclosed and sealed to the hammermill and the slurry tank cover. [District Rule 2201]
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
8. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
9. Replacement bags numbering at least 10% of the total number of bags in each baghouse shall be maintained on the premises. [District Rule 2201]
10. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
11. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201]
12. The maximum amount of grain processed through each hammermill shall not exceed 1,000 tons/day. [District Rule 2201]
13. The combined maximum amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57 shall not exceed 432,000 tons/year. [District Rule 2201]
14. Controlled PM10 emissions from the hammermilling of the grain shall not exceed 0.012 lb/ton-grain processed. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

15. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00068 lb/ton-grain conveyed. [District Rule 2201]
16. The permittee shall maintain daily records of the amount of grain processed through the hammermill, in tons, and annual records of the combined amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57, in tons. [District Rule 2201]
17. Differential operating pressure shall be monitored and recorded on each day that each baghouse operates. [District Rule 2201]
18. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-35-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN HAMMERMILL OPERATION #2 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-34 AND '-57); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. Visible emissions from the exhaust of the baghouse(s) serving the hammermill and associated conveying equipment shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Grain inlet conveyors at the grain hammermill operation shall be fully enclosed and sealed to the hammermill. [District Rule 2201]
5. Grain discharge conveyors from the hammermill(s) to the slurry tank shall be fully enclosed and sealed to the hammermill and the slurry tank cover. [District Rule 2201]
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
8. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
9. Replacement bags numbering at least 10% of the total number of bags in each baghouse shall be maintained on the premises. [District Rule 2201]
10. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
11. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201]
12. The maximum amount of grain processed through each hammermill shall not exceed 1,000 tons/day. [District Rule 2201]
13. The combined maximum amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57 shall not exceed 432,000 tons/year. [District Rule 2201]
14. Controlled PM10 emissions from the hammermilling of the grain shall not exceed 0.012 lb/ton-grain processed. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

15. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00068 lb/ton-grain conveyed. [District Rule 2201]
16. The permittee shall maintain daily records of the amount of grain processed through the hammermill, in tons, and annual records of the combined amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57, in tons. [District Rule 2201]
17. Differential operating pressure shall be monitored and recorded on each day that each baghouse operates. [District Rule 2201]
18. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-36-3

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 12,000 GALLON SLURRY TANK SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-38, '-41, '-42 AND '-43 [COMPLIANT DORMANT EMISSIONS UNIT])

## PERMIT UNIT REQUIREMENTS

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1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2201]
2. Operators shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant emissions unit, at which time this permit will be administratively modified to removed the DEU references. [District Rule 2010]
3. A source test to demonstrate compliance with the indicated emission limits/control efficiencies shall be performed within 60 days of recommencing operation of this unit. [District Rule 2010]
4. The slurry tank shall be physically disconnected from all process lines. [District Rule 2010]
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
7. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
8. All vapors from the slurry tank shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201]
9. The "distillation" (aka "process") scrubber shall maintain a minimum control efficiency of 95% for VOC emissions. [District Rule 2201]
10. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]
11. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]
12. There shall be no fugitive VOC emissions from equipment leaks associated with this slurry tank. [District Rules 2201 and 4455]
13. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]
14. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

15. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
16. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]
17. Upon recommencing operation, source testing to determine the VOC emissions rate from the outlet of the "distillation" (aka "process") scrubber, expressed as lb-VOC/gal-ethanol produced, shall be conducted at least once every twelve (12) months. After demonstrating compliance on two consecutive annual source tests, the unit shall be tested not less than once every twenty-four (24) months. If the result of the 24-month source test demonstrates that the unit does not meet the applicable limit(s), the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201]
18. Upon recommencing operation, source testing to determine the VOC control efficiency of the "distillation" (aka "process") scrubber shall be conducted at least once every twelve (12) months. After demonstrating compliance on two consecutive annual source tests, the unit shall be tested not less than once every twenty-four (24) months. If the result of the 24-month source test demonstrates that the unit does not meet the applicable limit(s), the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201]
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
20. Source testing to determine the rate of VOC, measured in ppmv and converted to lb-VOC/gal-ethanol produced, shall be conducted using EPA Method 25 or 25A in conjunction with the results of the EPA Method 18 conducted previously on the exhaust of the scrubber serving the distillation process at Pacific Ethanol Madera or Pacific Ethanol Stockton. [District Rules 1081 and 2201]
21. During source testing, permittee shall maintain records of the amount of ethanol produced, measured in gal-ethanol/hour. [District Rules 1081 and 2201]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
23. The "distillation" (aka "process") scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]
24. The water flow rate through the "distillation" (aka "process") scrubber shall not be less than 10 gal/minute. [District Rule 2201]
25. Upon recommencing operation, the permittee shall monitor and record the water flow rate through the "distillation" (aka "process") scrubber at least once every day [District Rule 2201]
26. If the water flow rate through the "distillation" (aka "process") scrubber is less than 10 gal/minute, the permittee shall correct the water flow rate to exceed 10 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the "distillation" (aka "process") scrubber continues to be less than 10 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]
27. Upon recommencing operation, the permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the "distillation" (aka "process") scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 10 gal/minute limit. [District Rule 2201]
28. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-37-5

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

COMPLIANT DORMANT 103,500 GALLON YEAST PROPAGATION TANK SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO<sub>2</sub>") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-39 AND '40. RTO ALSO SHARED WITH C-4261-49)

## PERMIT UNIT REQUIREMENTS

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1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
2. The feed supply lines from the yeast tank to each of the fermentation tanks shall be physically disconnected. [District Rule 2010]
3. Operators shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant emissions unit, at which time this permit will be administratively modified to removed the DEU references. [District Rule 2010]
4. A source test to demonstrate compliance with the indicated emission limits/control efficiencies shall be performed within 60 days of recommencing operation of this unit. [District Rule 2010]
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
9. All vapors from the yeast propagation tank shall be vented through the "fermentation" (aka "CO<sub>2</sub>") scrubber and then through the RTO. [District Rule 2201]
10. The overall control efficiency achieved by the "fermentation" (aka "CO<sub>2</sub>") scrubber and RTO combined shall be a minimum of 99.5% for VOC emissions. [District Rule 2201]
11. Controlled VOC emissions rate from the yeast propagation tank served by the "fermentation" (aka "CO<sub>2</sub>") scrubber vented to the RTO shall not exceed 0.08365 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201]
12. Controlled VOC emissions rate from the exhaust of the RTO while serving the yeast propagation tank, fermentation process tanks, beerwell process tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201]
13. Fugitive VOC emissions from equipment leaks associated with this yeast propagation tank shall not exceed 0.6 lb/day. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

14. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
15. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]
16. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
17. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
18. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]
19. Upon recommencing operation, source testing to determine the VOC emission rate (expressed as lb-VOC/1,000 gal-ethanol produced) from the outlet of the RTO shall be conducted at least once every twelve (12) months. Source testing shall be conducted under conditions representative of normal operations and while no denatured ethanol is being processed through the loading rack permitted under C-4261-49. [District Rule 2201]
20. Upon recommencing operation, source testing to demonstrate compliance with the 99.5% overall VOC control efficiency of the "fermentation" (aka "CO2") scrubber vented to the RTO shall be conducted at least once every twelve (12) months. Source testing shall be conducted under conditions representative of normal operations and while no denatured ethanol is being processed through the loading rack permitted under C-4261-49. [District Rule 2201]
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
22. Source testing to determine the rate of VOC, measured in ppmv and converted to lb-VOC/gal-ethanol produced, shall be conducted using EPA Method 25 or 25A in conjunction with the results of EPA Method 18 conducted previously on the exhaust of the scrubber serving the fermentation process at Pacific Ethanol Madera or Pacific Ethanol Stockton. [District Rules 1081 and 2201]
23. During source testing, permittee shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
25. The "fermentation" (aka "CO2") scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]
26. The water flow rate through the "fermentation" (aka "CO2") scrubber shall not be less than 30 gal/minute. [District Rule 2201]
27. Upon recommencing operation, the permittee shall monitor and record the water flow rate through the "fermentation" (aka "CO2") scrubber at least once every day. [District Rule 2201]
28. If the water flow rate through the "fermentation" (aka "CO2") scrubber is less than 30 gal/minute, the permittee shall correct the water flow rate to exceed 30 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the "fermentation" (aka "CO2") scrubber continues to be less than 30 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]
29. Upon recommencing operation, the permittee shall maintain daily records of (1) the date of water flow rate measurements, (2) the water flow rate through the "fermentation" (aka "CO2") scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 30 gal/minute limit. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

30. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
31. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
32. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
33. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
34. Upon recommencing operation, this operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
35. Upon recommencing operation, this operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
36. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-38-3

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 70,800 GALLON LIQUEFACTION TANK SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-41, '-42 AND '-43)

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
4. All vapors from the liquefaction tank shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201]
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the distillation process; consisting of one de-gas vessel, one beer stripper, one side rectifier, one rectifier, and one molecular sieve, shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201]
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]
7. Fugitive VOC emissions from equipment leaks associated with this liquefaction tank shall not exceed 0.6 lb/day. [District Rule 2201]
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-39-3

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

FERMENTATION PROCESS CONSISTING OF FOUR IDENTICAL 420,000 GALLON FERMENTATION TANKS ALL SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-37 AND '40. RTO ALSO SHARED WITH C-4261-49)

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
4. All vapors from the fermentation tanks shall be vented through the "fermentation" (aka "CO2") scrubber and then through the RTO. [District Rule 2201]
5. Controlled VOC emissions rate from each fermentation tank served by the "fermentation" (aka "CO2") scrubber vented to the RTO shall not exceed 0.08365 lb/1,000 gal-ethanol produced at the facility. Compliance with this VOC emission limit shall be determined by summing the measured VOC emission rates (as lb-VOC/1,000 gal-ethanol produced) at the RTO. [District Rule 2201]
6. Controlled VOC emissions rate from the entire fermentation process served by the "fermentation" (aka "CO2") scrubber vented to the RTO shall not exceed 0.08365 lb-VOC/1,000 gal-ethanol produced at the facility. Compliance with this VOC emission limit shall be determined by summing the measured VOC emission rates (as lb-VOC/1,000 gal-ethanol produced) at the RTO and the catalytic oxidizer. [District Rule 2201]
7. Controlled VOC emissions rate from the exhaust of the RTO while serving the yeast propagation tank, fermentation process, beerwell process tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201]
8. Fugitive VOC emissions from equipment leaks associated with the fermentation process shall not exceed 3.8 lb/day. [District Rule 2201]
9. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
10. Tanks shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]
11. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



12. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
13. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]
14. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
15. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
16. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
17. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
18. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
19. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
20. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-40-3

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 550,000 GALLON FIXED ROOF BEERWELL PROCESS TANK SERVED BY AN APACHE STAINLESS "FERMENTATION" (AKA "CO2") WET SCRUBBER WHICH VENTS TO A 2.5 MMBTU/HR REGENERATIVE THERMAL OXIDIZER (RTO) (SCRUBBER AND RTO SHARED WITH PERMITS C-4261-37 AND '-39. RTO ALSO SHARED WITH C-4261-49)

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
4. All vapors from the beerwell process tank shall be vented through the "fermentation" (aka "CO2") scrubber and then through the RTO. [District Rule 2201]
5. Controlled VOC emissions rate from the beerwell process tank served by the "fermentation" (aka "CO2") scrubber vented to the RTO shall not exceed 0.08365 lb/1,000 gal-ethanol produced at the facility. Compliance with this VOC emission limit shall be determined by summing the measured VOC emission rates (as lb-VOC/1,000 gal-ethanol produced) at the RTO and the catalytic oxidizer. [District Rule 2201]
6. Controlled VOC emissions rate from the exhaust of the RTO while serving the yeast propagation tank, fermentation process, beerwell process tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201]
7. Fugitive VOC emissions from equipment leaks associated with the beerwell process tank shall not exceed 0.6 lb/day. [District Rule 2201]
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-41-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

DISTILLATION PROCESS CONSISTING OF ONE DE-GAS VESSEL, ONE BEER STRIPPER, ONE SIDE STRIPPER, ONE RECTIFIER, AND ONE MOLECULAR SIEVE, ALL SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-42 AND '-43)

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
4. All vapors from the de-gas vessel, beer stripper, side rectifier, rectifier, and molecular sieve shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201]
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the distillation process - consisting of one de-gas vessel, one beer stripper, one side rectifier, one rectifier, and one molecular sieve - shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201]
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]
7. Fugitive VOC emissions from equipment leaks associated with the distillation process shall not exceed 3.9 lb/day. [District Rule 2201]
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
9. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]
10. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
11. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
13. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
14. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
15. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
16. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-42-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

ONE 98,000 GALLON PROCESS CONDENSATE TANK COLLECTING WATER FROM THE FERMENTATION AND THE DISTILLATION SCRUBBERS SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-41 AND '-43)

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
4. All vapors from the process condensate tank shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201]
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the process condensate tank shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201]
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]
7. Fugitive VOC emissions from equipment leaks associated with this process condensate tank shall not exceed 0.2 lb/day. [District Rule]
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-43-2

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

WET CAKE PROCESS CONSISTING OF ONE 135,600 GALLON WHOLE STILLAGE TANK, ONE CENTRIFUGE SYSTEM, ONE 100,000 GALLON THIN STILLAGE TANK, ONE EVAPORATOR, AND ONE 89,000 GALLON SYRUP TANK, ALL SERVED BY AN APACHE STAINLESS "DISTILLATION" (AKA "PROCESS") WET SCRUBBER (SCRUBBER SHARED WITH PERMITS C-4261-36, '-38, '-41 AND '-42) AND MECHANICAL CONVEYORS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 125,000 gallon/day or 40,000,000 gallon/year. [District Rule 2201]
4. All vapors from the wet cake process shall be vented through the "distillation" (aka "process") scrubber. [District Rule 2201]
5. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber serving the wet cake process, consisting of one whole stillage tank, one centrifuge, one thin stillage tank, one evaporator and one syrup tank, shall not exceed 0.1161 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201]
6. Controlled VOC emissions rate from the exhaust of the "distillation" (aka "process") scrubber while serving the slurry tank, distillation process, process condensate tank and wet cake process shall not exceed 0.1161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]
7. Fugitive VOC emissions from equipment leaks associated with the wet cake process shall not exceed 2.5 lb/day. [District Rule 2201]
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
9. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. [District Rule 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
11. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
12. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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13. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
14. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
15. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
16. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
17. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
18. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-44-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

WET CAKE STORAGE AND TRUCK LOADOUT OPERATION WITH MECHANICAL CONVEYORS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of wet cake processed shall not exceed either of the following limits: 1,150 ton-wet cake/day or 400,000 ton-wet cake/year. [District Rule 2201]
4. VOC emissions rate from the wet cake storage and truck loadout operation shall not exceed 0.0087 lb-VOC/ton-wet cake processed. [District Rule 2201]
5. Initial source testing to demonstrate compliance with the VOC emissions from the wet cake storage pile(s) shall be conducted within 120 days after initial start-up, with equipment in operational condition. [District Rule 2201]
6. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test. [District Rule 1081]
7. A source test plan shall be submitted for approval by the Permit Services Division and the Compliance Division at least 30 days prior to testing. The source test plan shall also include a description of how the conditions that will be used during the source test have been determined to be representative of the highest possible VOC emissions from the wet cake storage pile(s). [District Rules 1081 and 2201]
8. VOC emissions from the wet cake storage pile(s) shall be measured using EPA Method 204 and 204D. If it is determined that EPA Method 204 and 204D cannot be used to measure the VOC emissions from the wet cake storage piles, the VOC emissions shall be measured using SCAQMD methods 25.3, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1, or any other test method as approved by the District. [District Rules 1081 and 2201]
9. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
10. During source testing, permittee shall maintain records of the amount of wet cake stored in the pile(s) tested (tons), or the size (ft3) and density (lb/ft3) of the wet cake pile(s) tested. [District Rule 2201]
11. The permittee shall maintain daily and annual records, in tons, of the quantity of wet cake processed through this storage and truck loadout operation. [District Rules 1070 and 2201]
12. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-45-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

116,800 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK #1 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of 200-proof ethanol processed through this storage tank shall not exceed either of the following limits: 125,000 gallons/day or 40,000,000 gallons/year. [District Rule 2201]
4. The combined maximum amount of 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46 shall not exceed 40,000,000 gallons/year. [District Rule 2201]
5. VOC emissions from the 200-proof ethanol storage tank shall not exceed 1.8 lb/day. [District Rule 2201]
6. Fugitive VOC emissions from equipment leaks associated with this 200-proof ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201]
7. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
8. The permittee shall maintain records of the daily and annual quantities, in gallons, of 200-proof ethanol processed through this storage tank and the combined annual quantity, in gallons, of the 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46. [District Rules 1070 and 2201]
9. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)]
10. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
11. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rules 2201 and 4623]
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
18. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]
19. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
21. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
24. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623]
25. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)]
26. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)]
27. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)]
28. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)]
29. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

30. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)]
31. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
32. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)]
33. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)]
34. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)]
35. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
36. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)]
37. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)]
38. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)]
39. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)]
40. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)]
41. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)]
42. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

43. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)]
44. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]
45. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
46. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
47. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
48. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
49. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
50. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
51. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
52. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-46-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

116,800 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK #2 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of 200-proof ethanol processed through this storage tank shall not exceed either of the following limits: 125,000 gallons/day or 40,000,000 gallons/year. [District Rule 2201]
4. The combined maximum amount of 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46 shall not exceed 40,000,000 gallons/year. [District Rule 2201]
5. VOC emissions from the 200-proof ethanol storage tank shall not exceed 1.8 lb/day. [District Rule 2201]
6. Fugitive VOC emissions from equipment leaks associated with this 200-proof ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201]
7. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
8. The permittee shall maintain records of the daily and annual quantities, in gallons, of 200-proof ethanol processed through this storage tank and the combined annual quantity, in gallons, of the 200-proof ethanol processed through the storage tanks operating under permits C-4261-45 and C-4261-46. [District Rules 1070 and 2201]
9. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)]
10. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
11. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rules 2201 and 4623]
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
18. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]
19. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
21. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
24. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623]
25. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)]
26. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)]
27. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)]
28. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)]
29. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



30. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)]
31. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
32. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)]
33. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)]
34. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)]
35. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
36. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)]
37. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)]
38. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)]
39. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)]
40. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)]
41. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)]
42. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

43. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)]
44. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]
45. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
46. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
47. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
48. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
49. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
50. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
51. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
52. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-47-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

350,000 GALLON INTERNAL FLOATING ROOF DENATURED ETHANOL STORAGE TANK #1 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of denatured ethanol processed through this storage tank shall not exceed either of the following limits: 131,250 gallons/day or 42,000,000 gallons/year. [District Rule 2201]
4. The combined maximum amount of denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56 shall not exceed 42,000,000 gallons/year. [District Rule 2201]
5. VOC emissions from the denatured ethanol storage tank shall not exceed 1.4 lb/day. [District Rule 2201]
6. Fugitive VOC emissions from equipment leaks associated with this denatured ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201]
7. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
8. The permittee shall maintain records of the daily and annual quantities, in gallons, of denatured ethanol processed through this storage tank and the combined annual quantity, in gallons, of the denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56. [District Rules 1070 and 2201]
9. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)]
10. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
11. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rule 4623]
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
18. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]
19. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
21. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
23. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
24. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623]
25. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)]
26. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)]
27. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)]
28. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)]
29. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

30. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)]
31. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
32. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)]
33. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)]
34. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)]
35. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
36. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)]
37. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)]
38. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)]
39. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)]
40. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)]
41. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)]
42. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

43. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)]
44. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]
45. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
46. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
47. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
48. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
49. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
50. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
51. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
52. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-48-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

74,300 GALLON INTERNAL FLOATING ROOF 190-PROOF (OFF-SPEC) ETHANOL STORAGE TANK WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The maximum amount of 190-proof ethanol processed through this storage tank shall not exceed either of the following limits: 125,000 gallons/day or 4,000,000 gallons/year. [District Rule 2201]
4. VOC emissions from this 190-proof ethanol storage tank shall not exceed 1.9 lb/day. [District Rule 2201]
5. Fugitive VOC emissions from equipment leaks associated with this 190-proof ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201]
6. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
7. The permittee shall maintain daily and annual records, in gallons, of the quantity of 190-proof ethanol processed through this storage tank. [District Rules 1070 and 2201]
8. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)]
9. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
10. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rule 4623]
11. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
12. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]
13. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
14. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



15. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
16. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
17. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]
18. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]
19. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
20. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
21. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
22. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
23. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623]
24. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)]
25. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)]
26. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)]
27. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)]
28. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)]
29. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)]
30. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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31. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)]
32. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)]
33. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)]
34. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
35. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)]
36. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)]
37. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)]
38. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)]
39. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)]
40. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)]
41. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)]
42. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]
44. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
45. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
46. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
47. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
48. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
49. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
50. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
51. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-49-4

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

COMPLIANT DORMANT DENATURED ETHANOL BOTTOM TRUCK LOADING RACK WITH DRY BREAK COUPLERS SERVED BY A 2.5 MMBTU/HR CECO ABATEMENT SYSTEMS, INC. REGENERATIVE THERMAL OXIDIZER (RTO) WITH A MAXON MODEL KINEDIZER LOW NOX BURNER, OR AN EQUIVALENT RTO (RTO SHARED WITH PERMITS C-4261-37, '-39, AND '-40)

## PERMIT UNIT REQUIREMENTS

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1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
2. The feed supply lines from each storage tank that is connected to the loading rack shall be physically disconnected. [District Rule 2010]
3. Operators shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant emissions unit, at which time this permit will be administratively modified to removed the DEU references. [District Rule 2010]
4. A source test to demonstrate compliance with the indicated emission limits/control efficiencies shall be performed within 60 days of recommencing operation of this unit. [District Rule 2010]
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. Vapor return hose(s) shall be attached whenever loading equipment operates. [District Rule 2201]
9. All trucks loaded shall be inspected and determined to be vapor-tight such that all vapors are displaced into vapor return hoses during loading. [District Rule 2201]
10. All vapors displaced from trucks during load-out operations shall be incinerated in the RTO. [District Rule 2201]
11. The RTO shall only be fired on PUC regulated natural gas. [District Rule 2201]
12. The RTO shall maintain a minimum control efficiency of 99% for VOC emissions. [District Rule 2201]
13. The maximum amount of denatured ethanol loaded into trucks or railcars shall not exceed either of the following limits: 320,000 gallons/day or 42,000,000 gallons/year. [District Rule 2201]
14. Controlled VOC emissions rate from the RTO serving the denatured ethanol loading rack shall not exceed 0.0873 lb/1,000 gal-denatured ethanol loaded, equivalent to 0.327 lb-VOC/MMBtu. [District Rule 2201]
15. Controlled VOC emissions rate from the RTO while serving the yeast propagation tank, fermentation process, beerwell storage tank and denatured ethanol loading rack shall not exceed 0.171 lb/1,000 gal-processed. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

16. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NO<sub>x</sub>/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM<sub>10</sub>/MMBtu; or 0.00285 lb-SO<sub>x</sub>/MMBtu. [District Rule 2201]
17. The maximum number of gasoline hose disconnects performed by the ethanol truck loading operation shall not exceed either of the following limits: 120 disconnects/day or 22,000 disconnects/year. [District Rule 2201]
18. The maximum liquid spillage/leaks from each hose disconnect shall not exceed 10 milliliters or 0.0173 lb-VOC/disconnect. [District Rule 2201]
19. VOC emissions from the denatured ethanol truck loading operation shall not exceed 2.1 lb/day. [District Rule 2201]
20. Upon recommencing operation, the permittee shall maintain daily and annual records, in gallons, of the quantity of denatured ethanol processed through the loading rack. [District Rules 1070 and 2201]
21. Upon recommencing operation, the permittee shall maintain daily and annual records of the quantity of ethanol hose disconnects at the ethanol truck loading operation. [District Rules 1070 and 2201]
22. Upon recommencing operation, source testing to demonstrate compliance with the 99% VOC control efficiency of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. After demonstrating compliance on three consecutive annual source tests, source testing shall no longer be required and continued compliance with the 99% control efficiency shall be demonstrated by maintaining the RTO above its minimum required operating temperature. Source testing shall be conducted while denatured ethanol is being processed through the loading rack. [District Rule 2201]
23. Upon recommencing operation, source testing to determine the rate of VOC from the outlet of the RTO, expressed as lb-VOC/gal-ethanol produced, shall be conducted at least once every twelve (12) months. After demonstrating compliance on three consecutive annual source tests, source testing shall no longer be required and continued compliance with the outlet VOC emission rate shall be demonstrated by maintaining the RTO above its minimum required operating temperature. Source testing shall be conducted while denatured ethanol is being processed through the loading rack. [District Rule 2201]
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
25. Source testing shall be conducted using EPA Method 18, 25 or 25A. [District Rules 1081 and 2201]
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
27. During source testing, permittee shall maintain records of the amount of ethanol loaded into trucks, in gal-ethanol/hour. [District Rules 1070 and 2201]
28. The RTO shall be operated at a temperature of no less than 1,400 øF. [District Rule 2201]
29. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201]
30. Upon recommencing operation, the permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 øF limit. [District Rule 2201]
31. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
32. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

33. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
34. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
35. Upon recommencing operation, this operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit C-4261-0. [District Rule 4455]
36. Upon recommencing operation, this operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit C-4261-0. [40 CFR 60.480 and 60.481]
37. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-4261-50-1

EXPIRATION DATE: 11/30/2016

## EQUIPMENT DESCRIPTION:

NON-COMPLIANT DORMANT 75.6 MMBTU/HR SUPERIOR MODEL SEMINOLE 3 PASS NATURAL GAS-FIRED BOILER #1 WITH AN ALZETA MODEL CSB 756 ULTRA LOW-NOX BURNER, AND FORCED FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

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1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 2010]
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4320. [District Rule 4320]
4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101 and 40 CFR 60.43c(e)(2)]
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201 and 40 CFR 60.45c(c) and 60.47c(c)]
8. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu; 50 ppmvd CO @ 3% O<sub>2</sub> or 0.037 lb-CO/MMBtu; 0.006 lb-VOC/MMBtu; 0.0076 lb-PM<sub>10</sub>/MMBtu; or 0.00285 lb-SO<sub>x</sub>/MMBtu. [District Rules 2201, 4305, and 4306 and 40 CFR 60.43c(e)(2), 60.45c(c) and 60.47c(c)]
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
10. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306]
11. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306]
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
15. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306]
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
18. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306]
19. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306]
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
21. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306]
22. Permittee shall record monthly fuel consumption. [District Rule 1070 and 40 CFR 60.48c(c)]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305 and 4306 and 40 CFR 60.48c(i)]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-51-1

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

NON-COMPLIANT DORMANT 75.6 MMBTU/HR SUPERIOR MODEL SEMINOLE 3 PASS NATURAL GAS-FIRED BOILER #2 WITH AN ALZETA MODEL CSB 756 ULTRA LOW-NOX BURNER, AND FORCED FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

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1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 2010]
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4320. [District Rule 4320]
4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101 and 40 CFR 60.43c(e)(2)]
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201 and 40 CFR 60.45c(c) and 60.47c(c)]
8. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu; 50 ppmvd CO @ 3% O<sub>2</sub> or 0.037 lb-CO/MMBtu; 0.006 lb-VOC/MMBtu; 0.0076 lb-PM<sub>10</sub>/MMBtu; or 0.00285 lb-SO<sub>x</sub>/MMBtu. [District Rules 2201, 4305, and 4306 and 40 CFR 60.43c(e)(2), 60.45c(c) and 60.47c(c)]
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
10. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306]
11. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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13. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306]
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
15. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306]
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
18. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306]
19. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306]
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
21. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306]
22. Permittee shall record monthly fuel consumption. [District Rule 1070 and 40 CFR 60.48c(c)]
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305 and 4306 and 40 CFR 60.48c(i)]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-53-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

265 HP JOHN DEERE MODEL JW6H-UF40 DIESEL-FIRED EMERGENCY INTERNAL COMBUSTION ENGINE  
POWERING A FIRE PUMP

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115]
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. Emissions from this IC engine shall not exceed any of the following limits: 5.70 g-NOx/bhp-hr, 0.25 g-CO/bhp-hr, or 0.08 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
6. Emissions from this IC engine shall not exceed 0.07 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115]
8. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4701 and 4702, and 17 CCR 93115]
9. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702, and 17 CCR 93115]
10. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702, and 17 CCR 93115]

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-54-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

14,300 GPM INDUCED DRAFT COOLING TOWER SERVED BY A HIGH EFFICIENCY DRIFT ELIMINATOR

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]
5. Drift eliminator drift rate shall not exceed 0.005%. [District Rule 2201]
6. PM10 emission rate from the cooling tower shall not exceed 8.6 lb/day. [District Rule 2201]
7. Compliance with the PM10 daily emission limit shall demonstrated as follows:  $PM10 \text{ lb/day} = \text{circulating water recirculation rate} \times \text{total dissolved solids concentration in the water} \times \text{design drift rate}$ . [District Rule 2201]
8. Compliance with the PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory within 120 days of initial operation and quarterly thereafter. [District Rule 1081]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-56-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

350,000 GALLON INTERNAL FLOATING ROOF DENATURED ETHANOL STORAGE TANK #2 WITH AN ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. The maximum amount of denatured ethanol processed through this storage tank shall not exceed either of the following limits: 131,250 gallons/day or 42,000,000 gallons/year. [District Rule 2201]
5. The combined maximum amount of denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56 shall not exceed 42,000,000 gallons/year. [District Rule 2201]
6. VOC emissions from the denatured ethanol storage tank shall not exceed 1.4 lb/day. [District Rule 2201]
7. Fugitive VOC emissions from equipment leaks associated with this denatured ethanol storage tank shall not exceed 0.9 lb/day. [District Rule 2201]
8. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]
9. The permittee shall maintain records of the daily and annual quantities, in gallons, of denatured ethanol processed through this storage tank and the combined annual quantity, in gallons, of the denatured ethanol processed through the storage tanks operating under permits C-4261-47 and C-4261-56. [District Rules 1070 and 2201]
10. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. [40 CFR 60.112b(a)(1)(ii)]
11. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
12. This storage tank shall be equipped with an Ultraflote, model Dual Ultraseal, seal system. [District Rule 4623]
13. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
14. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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15. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
16. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
17. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
18. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
19. The Ultraflote model Dual Ultraseal seal system shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]
20. The geometry of the Ultraflote model Dual Ultraseal seal system shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]
21. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]
22. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
23. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
24. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]
25. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201 and 4623]
26. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iii)]
27. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 60.112b(a)(1)(iv)]
28. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 60.112b(a)(1)(v)]
29. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vi)]
30. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(vii)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

31. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 60.112b(a)(1)(viii)]
32. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
33. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623 and 40 CFR 60.113b(a)(1)]
34. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623 and 40 CFR 60.113b(a)(2)]
35. The permittee shall maintain records of all visual inspections required by this permit. Each record shall identify the storage vessel on which the inspection was performed, 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 60.115b(a)(2)]
36. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
37. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the vessel. [40 CFR 60.116b(b)]
38. Operator shall keep a record of the liquids stored in this container, the period of storage, the storage temperature, the maximum true vapor pressure (TVP) of that liquid during the respective storage period and API gravity. [District Rule 4623 and 40 CFR 60.116b(c)]
39. Operator of each storage vessel, either with a design capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia or with a design capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure normally less than 4.0 psia, shall notify the APCO within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. [40CFR 60.116b(d)]
40. For storage vessels operated above or below ambient temperatures, the operator shall calculate the maximum true vapor pressure based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR 60.116b(e)(1)]
41. Maximum true vapor pressure, for crude oil or refined petroleum products, may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)(2)(i)]
42. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 0.5 psia. [40 CFR 60.116b(e)(2)(ii)]
43. Operator shall determine the true vapor pressure of each VOL, other than crude oil or refined petroleum products, from standard reference texts, by ASTM Method D2879, or by using an appropriate method approved by EPA. [40 CFR 60.116b(e)(3)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

44. Operator of a tank storing a waste mixture of indeterminate or variable composition shall determine the highest maximum true vapor pressure for the range of liquid compositions to be stored prior to the initial filling, using methods specified for maximum true vapor pressure in this permit. [40CFR 60.116b(f)]
45. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Measurements of the gaps between the tank shell and primary and secondary seals. 4) Gas-tight status of the tank and floating roof deck fittings. Records of the gas-tight status shall include the vapor concentration values measured in parts per million by volume (ppmv). 5) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6) Any corrective actions or repairs performed on the tank in order to comply with rule 4623 and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]
46. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
47. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
48. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4]
49. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4]
50. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4]
51. The operator shall meet operating, inspection and re-inspection, maintenance, process pressure relief device (PRD) and component identification requirements of District Rule 4455 (4/20/05) for all components containing or contacting VOC, except for those components specifically exempted in Sections 4.1 and 4.2. [District Rule 4455, 5.0]
52. The operator shall not use any component that leaks in excess of the allowable leak standards, except as follows. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1]
53. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2]
54. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4 and 40 CFR 60.482-4(a)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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55. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 5.2.1 & 5.2.2; 40 CFR 60.482-2(a), (b) and (c); 40 CFR 60.482-7(d) and (e)]
56. The operator shall inspect all components at least once every calendar quarter. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5 through 5.2.7. Components shall be inspected using EPA Method 21. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7; 40 CFR 60.482-2(a), (b) and (g); 40 CFR 60.482-7(a), (b), (g) and (h)]
57. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8; 40 CFR 60.482-7]
58. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 and 5.2.10]
59. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11 and 40 CFR 60.482-4(b)]
60. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12]
61. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected using EPA Method 21; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1 & 5.3.2; 40 CFR 60.486(b)]
62. The tag shall include date and time of leak detection, date and time of leak measurement, indicate the leak concentration in ppmv (gas leaks), indicate whether it is a major or a minor leak (liquid leaks) and whether the leaking component is an essential component, unsafe-to-monitor component or critical component. [District Rule 4455, 5.3.3]
63. All component leaks shall be immediately minimized to the extent possible, but not later than one (1) hour after detection of leaks, in order to stop or reduce leakage to the atmosphere. As soon as practicable but not later than the time period specified in Table 3 of the rule, components that have been identified as leaking and have had emissions minimized to the extent possible but do not meet the applicable leak standards of the rule shall either be: 1) repaired or replaced, or 2) vented to a closed vent system, or 3) removed from operation. [District Rule 4455, 5.3.]
64. For any leaking component that is an essential or critical component, and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized but still exceeds any of the applicable leak standards of this rule, the operator shall repair or replace the component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6]

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65. For any component that has incurred five repair actions for major gas leaks or major liquid leaks (any combination) within a continuous 12-month period, the operator shall as soon as practicable but not later than 12 after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of the rule, or 2) replace the component with Best Available Control Technology (BACT) equipment, as approved by the APCO, or 3) vent the component to an APCO approved closed vent system as defined in Section 3.0 of the rule, or 4) remove the component from operation. Inaccessible components, unsafe-to-monitor components, essential components, or critical components shall satisfy the above-listed requirement as soon as practicable but not later than the next turnaround or not later than two (2) years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes earlier. The APCO shall be notified in writing prior to the replacement or retrofitting of any component. [District Rule 4455, 5.3.7]
66. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1]
67. The operator shall comply with the process PRD release notification and record keeping requirements specified in Section 6.3 of the rule. After a release from process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. [District Rule 4455, 5.4.3 and 5.4.4]
68. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and record keeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other APCO-approved system that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4455, 5.5]
69. The operator shall keep a copy of the OMP at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved Operator Management Plan. [District Rule 4455, 6.1.2]
70. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of the rule. [District Rule 4455, 6.2.1; 40 CFR 60.486(c)]
71. The operator shall notify the APCO, by telephone or other APCO-approved methods, of any process PRD release in excess of 500 pounds of VOC in a continuous 24-hour period, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. The operator shall submit a written report to the APCO within thirty (30) calendar days of following notification of process PRD release subject to 6.3.1 of the rule. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of the rule. [District Rule 4455, 6.3]
72. Measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument, calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. Operator shall keep a record of each instrument calibration in accordance with requirements as set forth Section 6.2.3 of the rule. [District Rule 4455, 6.4; 40 CFR 60.485(b)]
73. Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)]
74. Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)]
75. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)]

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76. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1(c)]
77. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)]
78. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b), and District Rule 2201]
79. When a leak is detected for each PLLS, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)]
80. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)]
81. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e), and District Rule 2201]
82. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)]
83. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [District Rule 40 CFR 60.482-2(g)]
84. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)]
85. Unless exempt under 40 CFR 60.482-3, 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 60.482-3(h) and (i). The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3(b)(1), (2), or (3). [40 CFR 60.482-3(a), (b), and (c)]
86. If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. 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. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3(d), (e), and (f)]
87. If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)]

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88. Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3(i)(1) and (2). [40 CFR 60.482-3(i), and District Rule 2201]
89. Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3(j)]
90. 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 100 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a), and District Rule 2201]
91. 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 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b), and District Rule 2201]
92. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)]
93. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)]
94. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)]
95. 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 60.482-1(c). 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. 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 this condition at all other times. [40 CFR 60.482-6(a) and (c)]
96. 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. [40 CFR 60.482-6(b)]
97. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)]
98. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)]
99. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7(a) and (b), and District Rule 2201]

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100. Any valve in gas/vapor service or in light liquid service 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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)]
101. When a leak is detected for any valve in gas/vapor service or in light liquid service, 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 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)]
102. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f), and District Rule 2201]
103. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)]
104. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)]
105. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8(a) and (b); and District Rule 2201]
106. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, 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 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)]
107. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)]
108. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)]
109. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)]

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110. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g), and District Rule 2201]
111. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)]
112. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)]
113. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)]
114. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)]
115. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)]
116. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)]
117. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.483-1 and 60.483-2]
118. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VV. [40 CFR 60.484(a)]
119. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)]
120. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppmv of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 100 ppmv methane or n-hexane for valves and connectors and 500 ppmv methane or n-hexane for pumps and compressor seals. [40 CFR 60.485(b); and District Rule 2201]

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121. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and 500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485(c); and District Rule 2201]
122. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)]
123. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)]
124. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)]
125. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)]
126. An owner or operator of more than one affected facility subject to the provisions Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)]
127. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, 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 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)]
128. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 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 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals; 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 (or designate) whose decision it was that 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; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c); and District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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129. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)]
130. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with <sup>±</sup> 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), <sup>±</sup> 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)]
131. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)]
132. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)]
133. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)]
134. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)]
135. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)]
136. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV. [40 CFR 60.486(k)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

137. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 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 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (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 in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)]
138. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)]
139. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VV 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 60.487(e)]
140. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)]
141. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-57-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

GRAIN HAMMERMILL OPERATION #3 CONSISTING OF FULLY ENCLOSED MECHANICAL INLET CONVEYORS FROM THE GRAIN STORAGE SILOS TO THE HAMMERMILL, AND HAMMERMILL, ALL SERVED BY A KICE INDUSTRIES, INC. MODEL VS 121-10 BAGHOUSE (BAGHOUSE SHARED WITH PERMITS C-4261-34 AND 35); ELEVATORS; AND FULLY ENCLOSED DISCHARGED MECHANICAL CONVEYORS EQUIPPED WITH SPRAY BARS

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. Visible emissions from the exhaust of the baghouse(s) serving the hammermill and associated conveying equipment shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Grain inlet conveyors at the grain hammermill operation shall be fully enclosed and sealed to the hammermill. [District Rule 2201]
5. Grain discharge conveyors from the hammermill(s) to the slurry tank shall be fully enclosed and sealed to the hammermill and the slurry tank cover. [District Rule 2201]
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
8. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
9. Replacement bags numbering at least 10% of the total number of bags in each baghouse shall be maintained on the premises. [District Rule 2201]
10. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
11. The baghouse shall operate at all times with a minimum differential pressure of 1/4 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201]
12. The maximum amount of grain processed through each hammermill shall not exceed 1,000 tons/day. [District Rule 2201]
13. The combined maximum amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57 shall not exceed 432,000 tons/year. [District Rule 2201]
14. Controlled PM10 emissions from the hammermilling of the grain shall not exceed 0.012 lb/ton-grain processed. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

15. Controlled PM10 emissions from all grain conveying equipment associated with this operation shall not exceed 0.00068 lb/ton-grain conveyed. [District Rule 2201]
16. The permittee shall maintain daily records of the amount of grain processed through the hammermill, in tons, and annual records of the combined amount of grain processed through the hammermills operating under permits C-4261-34, '-35 and '-57, in tons. [District Rule 2201]
17. Differential operating pressure shall be monitored and recorded on each day that each baghouse operates. [District Rule 2201]
18. Records of all maintenance of each baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]
19. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4261-58-0

**EXPIRATION DATE:** 11/30/2016

**EQUIPMENT DESCRIPTION:**

POWDER LIME PNEUMATIC RECEIVING AND STORAGE OPERATION CONSISTING OF A 1,309 CUBIC FOOT STORAGE SILO SERVED BY A WAM MODEL FC.J.24.V.PP BIN VENT FILTER

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, 5% opacity. [District Rules 2201 and 4101]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The bin vent filter shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
5. The bin vent filter cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule]
6. Material removed from the bin vent filter shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule]
7. Records of all maintenance of the bin vent filter, including all change outs of filter media, shall be maintained. [District Rule 2201]
8. A spare filter shall be maintained on the premises at all times. [District NSR Rule]
9. Maximum amount of lime loaded into this silo shall not exceed the following limits: 32 tons/day and 300 tons/year. [District Rule 2201]
10. Permittee shall maintain daily and annual records of the amount of lime loaded into this silo. [District Rule 2201]
11. Records shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

**Attachment D**  
**Insignificant Activities**

**San Joaquin Valley  
Unified Air Pollution Control District  
Title V Application - INSIGNIFICANT ACTIVITIES**

COMPANY NAME: Pacific Ethanol Madera, LLC	FACILITY ID: C-4261
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Check the box next to the exemption category from Rule 2020 which describes any insignificant activity or equipment at your facility not requiring a permit.

Exemption Category	Rule 2020 Citation	√	Exemption Category	Rule 2020 Citation	√
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1		Containers used to store refined lubricating oils	6.6.8	
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4		Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1		Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	
Piston-type i.c.engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2		Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3		Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥0.8251	6.7.1.1	
Space heating equipment other than boilers	6.1.4		Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers++	6.2		Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	
Use of less than 2 gal/day of graphic arts materials	6.3		Equipment used to apply architectural coatings	6.8.1	
Equipment at retail establishments used to prepare food for human consumption	6.4.1		Unheated, non-conveyorized cleaning equipment with < 10 ft <sup>2</sup> open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3		Brazing, soldering, or welding equipment	6.10	√
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5		Equipment used to compress natural gas	6.11	
Containers used to store clean produced water	6.6.1		Fugitive emissions sources assoc. with exempt equipment	6.12	
Containers ≤100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2		Pits and Ponds as defined in Rule 1020	6.15	
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3		On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Containers with a capacity ≤ 250 gallons used to store organic material where the actual storage temperature <150 F	6.6.4		Emissions less than 2 lb/day from units not included above	6.19	
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5		Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥0.9042	6.6.6		Non-structural repairs & maintenance to permitted equipment	7.3	
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7		Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

No insignificant activities (Check this box if no equipment in the above categories exist at your facility.)